

ATTACHMENT 3

FANCHER CREEK FLOOD CONTROL IMPROVEMENT PROJECT

WORK PLAN

INTRODUCTION

History of Flooding

The City of Fresno originally developed in the late 1800's in a natural low-lying area where Dry Creek emptied into the valley floor. The area was called the "Sinks of Dry Creek." As the City grew, its susceptibility to flood damages also grew. For many years the City addressed flooding conditions with limited solutions on an individual site basis of the flooding location. Often the burden of dealing with the flooding fell to the businesses and residents that had developed in the lower lying areas.

In order to address this problematic flooding, on May 13, 1955 the Fresno Metropolitan Flood Control Act became law, which was a result of efforts by the local citizenry. The Act created a special district to address drainage and flood control solutions. Since its formation the Fresno Metropolitan Flood Control District ("District") has developed and is following a flood control and storm drainage master plan, which calls for the systematic completion of an area-wide flood control system and numerous local drainage systems. The City of Fresno, incorporated in 1885, was developed without the benefit of a coordinated or comprehensive flood control or drainage program in the community. Since the creation of the District, the City and the District have worked jointly on many storm drainage improvement projects. The District has completed facilities that now provide permanent, local drainage service to more than 75% of the Fresno/Clovis area.

The City and District's flood control program focuses on controlling flood flows from an extensive network of streams which extend into the Fresno/Clovis area from the adjoining foothills to the east. The streams carry runoff from a 175 square mile area that reaches an elevation of 5,000 feet in the Sierra-Nevada. The streams flow to the valley floor where they periodically inundate farmland and urban development. Storm flows have caused the local streams and canals to overflow an average of once every four years since 1953. Until the late 1940's, the largest flood threat was from Big Dry Creek, an 86.2 square mile watershed upland of the City. In February 1948, the Big Dry Creek Dam was completed and provided protection that would control approximately a 60-year, 30-day event.

Basics of the District System

The Fresno Metropolitan Flood Control District Urban Drainage and Flood Control Master Plan guides the engineering, planning and construction of flood control and urban drainage facilities within the District's service area. At present, the metropolitan area of Fresno and Clovis is divided into 162 drainage areas, each serving an area of roughly one to two square miles, and assigned an alphanumeric name. Each drainage area is planned with its own stormwater retention basin, which range in size roughly between six and 25 acres, depending upon the stormwater storage capacity needed. There are currently 138 fully excavated stormwater retention basins in the flood control system inventory. There

are also nine major flood control facilities which serve to protect farmland and the urbanized area from foothill-generated flood flows. The flood control facilities work in concert with the urban facilities to control stormwater and flood flows to protect lives and property.

Control of Flood Flows

Following the formation of the District, the City has delegated to it the control of such storm flows through a planned system of dams and reservoirs, detention basins, channel improvements and stream controls. The initial planning work was completed in 1957 and it is documented in a report often referred to as the "Nolte Report".

Subsequently, the District became the local sponsor of a federal project with responsibility for the major elements of the flood control system. Please refer to **Exhibit No. 1** as a general reference to features of the **Fancher Creek Flood Control Improvement Project** (hereinafter referred to as "Project") and its relationship to the federal project, a project identified as the Redbank-Fancher Creeks Flood Control Project, a cooperative effort by the United States Army Corps of Engineers, the State of California and the District.

In the Local Cooperation Agreement, the District accepted the responsibility of the Big Dry Creek Dam and appurtenances directly from the federal government, eliminating any State assurances of nonfederal cooperation to the United States. Therefore, Big Dry Creek Dam and all of its appurtenances are not part of the State Plan of Flood Control. Further, Water Code Section 8523 defines the State Plan of Flood Control as limited to the Sacramento and San Joaquin River watersheds. The California Water Plan Update 2009 defines the Fresno/Clovis area as lying within the Tulare Lake Basin. Thus, the Fresno/Clovis metropolitan area is qualified for the Proposition 1E funds, which are designated for areas not part of the State Plan of Flood Control.

Project Components Completed

Work completed since September 30, 2008 will be used for credit in the required local match. The Integrated Regional Water Management Grant funds will be used towards completion of improvements to the Fancher Creek Detention Basin. Such improvements will allow revisions to the Federal Emergency Management Agencies (FEMA) Flood Insurance Rate Maps and will eliminate the downstream 100-year floodplain. In addition, improvements will be made to downstream facilities, which are designed to function in conjunction as part of the Redbank-Fancher Creeks Flood Control Project.

The Project consists of construction of new stormwater facilities in Drainage Area "BO", and includes in its fifty percent local match the work completed since September 30, 2008 towards the completion of improvements to Fancher Creek Detention Basin. These elements are more clearly delineated on **Exhibit No. 2**, attached.

The proposal requests credit for work completed on the Fancher Creek Detention Basin which, when completed, will have a final pool capacity of 1,891 acre-feet. Once complete, the basin will have sufficient capacity to provide the 100-year control of the Fancher Creek flows.

The new facilities proposed include improvements to a number of District drainage areas. In area "BO" new storm drains, pipelines and additional capacity for Basin "BO" will be constructed. On June 17, 2009 changes were made to shift 99.8 acres formerly in

Drainage Area “Y,” a local area immediately westerly and downstream of Drainage Area “BO”, to Area “BO”. This change necessitates the upgrade of Area “BO” facilities. In addition, other areas were also added to this Area. These changes are identified on **Exhibit No. 3** attached hereto.

With respect to Drainage Area “Y,” the change lessened the pipeline collection facilities that needed to be constructed in Drainage Area “Y” and allowed the existing fully improved and landscaped Basin “Y” to meet District storage standards with the existing on-peak pump relief capability. The change also shifted 5.2 acre from Drainage Area “W” to Drainage Area “BO” because drainage would otherwise be blocked by existing development of parcels with different ownerships. This also provided a slight improvement in the performance of the Drainage Area “W” system. The improvements to Drainage Area “BO” also include the annexation of 68.2 acres, formerly directly discharging to Fancher Creek. This area will now be served by the Drainage Area “BO” system.

Water Quality Benefits

The purpose of the Project, as well as the entire Drainage Master Plan (“DMP”), is to collect storm water and control runoff while removing debris, silt and other contaminants in order to provide a comprehensive solution for non-point source pollution. The District participated in the 1984 National Urban Runoff Program studies and demonstrated the effectiveness of retention basins for stormwater treatment, and has developed a well-documented program that identifies the performance and benefits of capturing and removing pollutants in the stormwater management basins. The flood flows from Fancher Creek will also remove some pollutants from its watershed, albeit somewhat limited, as the Fancher Creek Detention Basin is intended to prioritize control of flood flows and its watershed has less man-generated pollutants than from urban runoff.

The urban stormwater management basins, and more specifically the improved capacity of Basin “BO” and the pump station to regulate the water level, treat or remove pollutants from urban runoff. In the process of capturing stormwater flows, the Project will enhance the capacity of Basin “BO” and thereby improve the removal of silt, debris, total suspended solids, and minimize the amounts of pesticides, nitrogen, phosphorus and other chemicals that would be included in the runoff that would otherwise flood local farm fields and urban areas. The District estimates 60% to 70% of the water captured in the basin is recharged. The remaining amount that is discharged has improved water quality as a result of the detention and settling in the basin.

Work To Be Done

The Fancher Creek Flood Control Improvement Project is nearly “shovel ready” with only a limited amount of design work to be done before construction contracts can be awarded. The Project will span portions of the City of Fresno (the “City”) and County of Fresno (the County) that lies within a 100-year flood zone. The Project includes recent improvements to the Fancher Creek Detention Basin and the application to revise the floodplain maps. This elimination of the FEMA Zone A floodplain will provide immediate economic and long-term benefits to downstream neighborhoods. Completion of the overall DMP will also remove the risk of flooding from localized runoff. The pre-Project floodplains are shown on **Exhibit No. 4**. The post-Project floodplains are shown on **Exhibit No. 5**. FEMA’s Engineering Contractor, Michael Baker, Jr. Inc., has reviewed and approved the engineering study to revise the flood plain and is currently revising the map accordingly. FEMA has assigned Case No. 10-09-3948P for Communities nos. 060295 and 060048 to

the Letter of Map revision (LOMR) request.

The Project will intercept excess runoff from foothill terrain and temporarily store the excess runoff within the Fancher Creek Detention Basin. The watershed is shown on **Exhibit No. 6**. The attenuated flows will then be discharged into Fancher Creek, an open channel that is distributed through various canal branches as it flows through the urban area. Ultimately, the floodwater will be routed to flood easements areas southwest of the metropolitan area generally diagramed at the lower left of **Exhibit No. 1**. To the extent a portion of natural flow in Fancher Creek is diverted into the basin, that portion of the flood flow will remove much of the sediment and a portion of other pollutants, especially those that are associated with the suspended solids.

Water Conservation

The Project will also promote water conservation by (i) capturing stormwater and recharging it to the local groundwater aquifer (the primary source of drinking water supply - currently in substantial overdraft), (ii) improving the volume of imported water that can be recharged into the local groundwater basin during the non-rainy season (iii) using captured stormwater to irrigate the perimeter landscaping of the basin, and (iv) providing non-potable water for outdoor watering to a proposed adjacent mixed use development.

These benefits are incorporated into the Upper Kings Basin Integrated Regional Water Management Plan ("IRWMP"). The District Service Plan is a Foundational Action identified in the IRWMP, meeting the specific IRWMP objectives of conjunctive use, flood management, water quality, and environmental management. The IRWMP further describes how FMFCD, with the assistance of Fresno Irrigation District ("FID"), captures stormwater through joint use facilities designed for both flood control and groundwater recharge purposes. This strategy was listed as "a good example of how recharge/retention ponds and canal facilities can be integrated to meet multiple objectives..."

GOALS AND OBJECTIVES OF THE PROJECT

The goals and objectives of the Project are to:

- (i) Improve the Fancher Creek Detention Basin towards the ultimate goal of a final gross pool capacity of approximately 1,891 acre-feet (200-year, 30 day event protection level) and currently achieve the 100-year, 30-day event protection level.
- (ii) Eliminate mandatory flood insurance requirements for property owners in the current 100-year floodplain.
- (iii) Complete and obtain credit for certain storm drainage system improvements shown on the **Exhibits No. 2, 7, 8, 9, 10, and 11** as Project features to provide adequate capacity to control local runoff in Drainage Areas "Y" (644.9 acres excluding the basin) and "BO" (462.1 acres excluding the basin area).
- (iv) Provide drainage service to 68.2 acres formerly draining directly to Fancher Creek (See **Exhibit No. 12**) and redirecting those discharges from Fancher

- Creek to Basin “BO” via new storm drains shown on **Exhibit No. 7** and capturing the runoff for beneficial use.
- (v) Improve Fancher Creek water quality by redirecting three locations away from direct discharges to Fancher Creek and by diverting surface water runoff away from a temporary stormwater basin that adjoins a former sewage treatment plant site, (see **Exhibit No. 12**). Redirecting the runoff to Basin “BO” reduces the City’s long-term maintenance of this temporary pond and provides better operational control for the overall drainage area.
 - (vi) Provide 49 acre-feet of additional storage capacity in Basin “BO” (see **Exhibit No. 8**) and thereby gain this volume in overall stormwater management capture capability.
 - (vii) Recharge local groundwater with up to 740 acre-feet of additional water recharge annually above current amount of 540 acre-feet.
 - (viii) Provide approximately 65.1 acre-feet non-potable storm water to adjacent future Fancher Creek Town Center development for landscape irrigation and other outdoor uses and irrigation of top perimeter landscaping of Basin “BO” (See **Exhibits No. 8 and 9**).
 - (ix) Facilitate development and provide permanent jobs in an underserved, low-income community.

PURPOSE AND NEED FOR THE PROJECT

Summary

Before the substantial construction of the Fancher Creek Detention Basin, 682 acres downstream of the Fancher Creek Detention Basin (excluding the channel itself) was subject to periodic flooding, thereby endangering the health, safety and welfare of the existing community and resulting in significant economic loss. In addition, the flooding prohibited future development, which is crucial to the revitalization of the area. The improvement of the Fancher Creek Detention Basin, as included in the Project, removes this area from the 100-Year floodplain (see **Exhibits No. 4 and 5**.)

In addition, the current local drainage plan in Drainage Area “Y” (See **Exhibit No. 13**) was substandard and had to be updated. Further, substantial development is proposed at the easterly upstream portion this drainage area, which necessitated the implementation of a new drainage plan as soon as possible.

A plan was developed to address the goals and objectives described above. The most economical and cost effective options were selected as the preferred alternatives. The new plan impacts Drainage Areas “W”, “Y”, and “BO”, (see **Exhibit No. 3**). An area of 99.8 acres of Drainage Area “Y” and 5.7 acres of Drainage Area “W” was be shifted into Drainage Area “BO”.

Further, 68.2 acres of land that had been developed many years ago in the County, and is currently not served from urban drainage plan, also will be brought into the plan with service to Drainage Area “BO”. These areas are older subdivisions with stormwater runoff that drains directly to Fancher Creek. The original pipelines that were installed

are corrugated metal and have substantially deteriorated, may soon fail, and are at the end of their useful life.

Changes to Drainage Area “Y”, “BO” and “W”

A nearly mile long stretch of parallel pipe was required to upgrade Drainage Area “Y” to current standards unless an upland portion of the drainage area was removed. In 2008, FMFCD approved a plan to shift 99.8 acres of Drainage Area “Y” to the adjoining drainage area to the east, Drainage Area “BO”. The plan is preferred because of the economic feasibility of serving the area by constructing new storm drains a relatively short distance to Basin “BO”. Within Drainage Area “BO”, Basin “BO” will be excavated to provide the capacity required for this additional area. With this change, Drainage Area “Y” was recently updated to meet community standards with only the addition of a 30-inch diameter pipeline installed parallel to existing facilities in Minnewawa Avenue and also the installation of a 36-inch and 30-inch diameter pipeline in Tulare Avenue between Minnewawa and Clovis Avenues (see **Exhibit No. 10**). This work was completed on November 18, 2009 and credit is requested towards the match share of future costs.

Further, approximately 5.7 acres of Drainage Area “W” is proposed to become part of a new mixed-use development east of Clovis Avenue. This area will also be shifted from Drainage Area “W” into Drainage Area “BO”. Removal of this small area from Drainage Area “W” has a slightly positive impact on Drainage Area “W”’s service level and allows it to continue to meet community standards.

Change to Areas Formerly Discharging to Fancher Creek or a Temporary Pond

These areas are shown with red hatching and identified as “Added Service Area” on **Exhibit No. 3**. The areas were developed approximately 50 years ago with facilities in place prior to development on the Storm Drainage and Flood Control Master Plan. The original developer of these areas installed 21-inch diameter corrugated metal pipes and drained the properties directly into Fancher Creek. As noted, these drains have completed their useful life and have significant deterioration.

New storm drainage to each of the low points in these subdivisions will avoid the need to replace these deteriorated pipelines, which are in well-established landscaped areas.

The areas surrounding these tracts have been developed and these subdivisions are no longer isolated islands. Incorporating drainage service for these areas into the new drainage plan will provide the opportunity of treatment of storm water in the District’s basin system, in lieu of direct and untreated discharges to Fancher Creek.

Such improvement would demonstrate greater compliance with the goals and objectives of the local multi-agency National Pollution Discharge Elimination System (NPDES) Permit, the District’s Municipal Stormwater Quality Management Program. Attached as **Exhibit No. 14** are letters from the County of Fresno and Fresno Irrigation District (“FID”) that support such inclusion of the these areas into the District’s system.

Improvement in Water Quality

The Flood Control District has implemented its MDP and has, or is, constructing a stormwater management basin for all other urban drainage areas downstream along

Fancher Creek and its distributaries. Flow of water in Fancher Creek is fully controlled as each urban watershed captures runoff from its local drainage area in its stormwater management basin. These basins collect and hold large storm volume runoff, discharging it in a controlled fashion while allowing the storm runoff to infiltrate into the groundwater basin. The controlled flow in the downstream channels will reduce further erosion that creates sediment deposition and other pollutants, thereby impacting downstream water bodies.

The process of channelizing runoff into a stormwater management basin has substantial environmental and water quality benefit. Silt, debris, total suspended solids (TSS) and other pollutants such as pesticides, nitrogen, phosphorous and other chemicals that would otherwise runoff into flooded local farm fields, the canal system or urban areas, is directed and captured and treated in stormwater management basins.

On average, 80 percent of the TSS and 50% to 75% of heavy metals found in stormwater settles out in stormwater management basins. The sediment is periodically cleaned from the basins before the pollutants accumulate above regulatory limits.

Reducing direct discharges is also very helpful in managing storm flows in the irrigation canal system. While the canals split into several branches downstream, reducing direct discharges of storm water into canals by redirecting flood flows to only those from FMFCD basins greatly enhances the management and control of storm water in the canal system by treating the stormwater runoff and by reducing eroding flood flows. Connecting the currently non-served areas to a newly planned FMFCD system also improves the water quality in the canal system, making it easier to utilize the water downstream for beneficial purposes.

Further, Fresno County operated a sewage treatment plant at Tulare and Argyle from the 1960s to 1970s (see **Exhibit 12**). The sewage from the plant was treated and disposed in unlined treatment/disposal ponds on the southeastern portion of the site. Assessments of site soils beginning in 2005 indicated possible contamination due to high concentrations of nitrogen, chromium, and nickel. In a March 12, 2007 letter to the County, the California Regional Water Quality Control Board (CRWQCB) acknowledged that while the initial investigation indicated what appeared to be elevated chromium, nickel and Total Kjeldahl Nitrogen (TKN), subsequent investigations indicated total chromium and nickel concentrations were below any State action levels. The CRWQCB, however, concluded that the elevated TKN concentrations were a potential threat to groundwater and required the County to provide a risk assessment and to prepare a work plan and engineering controls in order reduce the risks to underlying groundwater.

All of the areas shifted into Drainage Area "BO" will be planned with proposed pipeline systems to community standards. The collection system will be a separate pipeline from the current storm drains in Drainage Area "BO" and therefore not affect drainage service to the original properties within Drainage Area "BO". In order to accommodate the additional drainage being directed to Basin "BO", the basin will be excavated to provide the capacity to meet District standards. A new pump station, internal dewatering, erosion control pipelines, and an irrigation system that will irrigate the top perimeter landscaping is included in the Project. A non-potable water supply line is included in costs. This line will provide landscape irrigation for the proposed Fancher

Creek Town Center and put excess stormwater to beneficial use. Surface water will be used for irrigation when available, lessening the use of potable water.

Groundwater Recharge

Basin “BO” Recharge

Over the past ten years, Basin “BO”, in its current state of excavation, has recharged an averaged of approximately 540 acre-feet of imported surface water per year. Although this is a substantial amount of water, the Flood Control District estimates when the basin is deepened for additional storage capacity and an improved point of delivery is constructed, that Basin “BO” will be capable of much more. A new connection to Fancher Creek is proposed as part of the Project.

During the imported surface water recharge season (approximately early-April through mid-October), District staff documents the water level at Basin “BO” bi-weekly, as well as the level in all other basins accepting surface water deliveries from the canal systems. The historic water level data for Basin “BO” confirms that the water level is typically much lower than levels authorized by the District. This is a result of limited delivery capability in the current connection to Basin “BO”. The historic average water level, during surface water recharge, is approximately 9.25 feet below the high-water level of the basin. The District authorizes a water level as high as 3.75 feet below the high water level. From conversations with the Fresno Irrigation District (FID), the canal that supplies water to Basin “BO,” the Eisen Ditch, does not have enough flow capacity to fill Basin “BO” to authorized levels.

Basin “BO” is adjacent to Fancher Creek and the proposed project will construct an intertie between Basin “BO” and Fancher Creek. Fancher Creek is one of the larger capacity facilities used by FID for surface water deliveries and it has the necessary capacity to supply sufficient surface water to fill Basin “BO” to its authorized levels.

Filling Basin “BO” to authorized levels will increase surface water recharge by providing more water and increasing the water depth, which will result in an increased percolation rate. The Flood Control District has projected that the increased water delivery and percolation rate will result in approximately 740 acre-feet of additional surface water recharge per year.

Economic Benefits

One further reason for the Project is the opportunity to facilitate commercial development and to provide additional housing for a very underserved and economically distressed community. Poverty rates for the census tracts within the proposed project area range from 25.7% to 41.3%. The Fancher Creek Town Center is a regional shopping center, which is currently being developed within an area that will be taken out of the 100-year flood plain. This development will bring shopping, housing, and office workspace to one of the most underserved areas in Fresno County. Currently, residents of the immediate area and in communities in the southeastern part of Fresno County have very few shopping and retail outlets, and therefore have to travel significant distances to avail

themselves of these services. Eventually encompassing over 1.5 million square feet of commercial-retail, 1.5 million square feet of industrial and 580 residential units (80/20 affordable), the project will be transformational to this area. In 2005, the City of Fresno's Economic Development Department processed the Fancher Creek Master Planned Community data through the University of Minnesota's "IMPLAN Model," which is an industry standard economic development modeling program used by developers, governments and other economic forecasting organizations throughout the United States. The model was customized to take into account Fresno's tax and fee structures. Results from the model illustrated that the Fancher Creek Town Center development would generate nearly 17,000 new jobs and provide direct, indirect and induced economic benefits to the City of Fresno of over \$2.8 billion dollars.

INTEGRATED ELEMENTS OF PROJECT

The parties participating in this Project consist of the City of Fresno as Applicant, and the Fresno Metropolitan Flood Control District as an interested party. The Project however will directly benefit a number of other agencies or organizations.

The Fresno Irrigation District (FID) will benefit as the operator of the Fancher Creek. FID uses Fancher Creek in the delivery of its irrigation water supply. Further the flows in Fancher Creek must be distributed by FID into various branches of its canal system. During periods of excess water, FID also disposes of the water flowing in these canal systems southwest of the City. FID and the City operate other recharge basins downstream which lessens contaminants from the direct discharges shown on **Exhibit No. 12. Exhibit No. 15** identifies the features of the Fancher Creek Detention Basin. The hatched area of this exhibit identifies the most recent area of excavation post September 30, 2008 for which credit is proposed under this grant application. Some mitigation planting has been completed since September 30, 2008, also shown on this exhibit, and its cost is also proposed for grant credit.

An Agreement is already in place between the Flood Control District and the City regarding the use of Basin "BO" to recharge the City's imported surface water supply. The District will make arrangements for a potable water supply, as a backup source of water during the brief periods when Basin "BO" is drained for maintenance purposes. During these brief periods, no surface water will be available to sustain the perimeter landscaping of Basin "BO". The potable water will serve as irrigation water during this maintenance activity.

The Flood Control District will also contract with a private developer to deliver stormwater to his project for irrigation and other outdoor watering purpose and thereby reduce the draw on water from the Bakman Water District. A non-potable water line is included in the Project for that purpose. It may also be available to irrigate landscaping along a trail proposed separately from the Project.

The City, County and District have coordinated the application to FEMA to revise the floodplain maps as a result of the most recent work completed at the Fancher Creek Detention Basin. The Flood Control District has submitted information and application to FEMA to amend the FIRM Maps with these three parties executing the MT-2 form of FEMA. The City and the County are the official enrolled local entities in the flood insurance program.

Additional coordination between the City and other municipalities is also anticipated to occur, as listed below:

- In removing a large area from the FEMA Zone A flood plain, the DMP will protect a Chevron Station and Johnny Quick Market at the southeast corner of Temperance and Belmont Avenues, GW School Supply east of Clovis Avenue on the south side of Belmont Avenue, the entire Fancher Creek Business Park at the southeast corner of Fowler and Belmont Avenues, including the \$17 million dollar Ferguson Plumbing Supply warehouse and showroom, and more than 600 other mostly residential parcels which are currently located in the 100-year flood

plain. In addition, the DMP will protect the Fancher Creek Town Center regional shopping center currently being developed, and the to-be-constructed Fancher Creek Trail and Park.

- City of Fresno, City of Clovis, Fresno Irrigation District, and Fresno Metropolitan Flood Control District have a pending joint water rights application before the State Division of Water Rights for the water supply generated from the foothill streams within the Fresno Metropolitan Flood Control District boundary, including the waters of Fancher Creek.
- The Project also meets the objectives of the California Water Plan Update 2009 with the implementation of integrated flood management, surface and groundwater quality improvement, and the efficient use and reuse of water.

REGIONAL MAP

Exhibit 1 is a regional map and serves to orient the reader to the Project location and to identify certain features discussed herein. Exhibit No. 1 highlights the location of Drainage Area “Y”, Drainage Area “BO”, and the Fancher Creek Detention Basin. Features of the Redbank-Fancher Creeks Project are also shown for reference. While Big Dry Creek Dam has existed since 1948, it was raised 7.5 feet with the Redbank-Fancher Creeks Project in the late 1990s.

COMPLETED WORK

Work completed prior to September 30, 2008

1. Fancher Creek Detention Basin

Prior to September 30, 2008 FMFCD expended \$17,669,679.00 for purchasing 273 acres of land for the basin site, and excavation, grading and construction of several improvements to the basin. Improvements to the site prior to September 2008 included construction of the 2,860 foot-long earthen dam and necessary levees, a 360 foot-long concrete spillway, control structures that include new headworks for both the Mill Ditch and the Fancher Creek Canal and pleated overflow weirs for both cells of a two-cell basin, relocation and consolidation of the Mill Ditch and Fancher Creek Canal within the basin site complete with concrete lining, and a 2,000 foot-long 48-inch diameter dewatering pipeline. There were also several major excavation projects completed by the District and many smaller private soil excavation projects completed by local contractors. The total volume excavated was 1,212,540 cubic yards of soil. Some of the excavation was ineffective until the most recent work completed after September 30, 2008. Onsite work also included the removal of an existing residential structure and related outbuildings and improvements, installing a chain link fence around the perimeter of the site and replacing an irrigation canal with a pipeline along the southern boundary of the basin.

The City, County and District have coordinated the application to FEMA to revise the floodplain maps as a result of the most recent work completed at the Fancher Creek Detention Basin. The Flood Control District has submitted information and application to FEMA to amend the FIRM Maps with these three parties executing the

MT-2 form of FEMA. The City and the County are the official enrolled local entities in the flood insurance program. As previously mentioned, the engineering study prepared by the District's consultants has been verbally approved by FEMA's contractor, and the map is being revised. In removing a large area from the FEMA Zone A flood plain, the DMP will protect a Chevron Station and Johnny Quick Market at the southeast corner of Temperance and Belmont Avenues, Fancher Creek Business Park and Ferguson's Supply at the southeast corner of Fowler and Belmont Avenues, GW School Supply east of Clovis Avenue on the south side of Belmont Avenue and more than 600 other mostly residential parcels which are currently located in the 100-year flood plain.

2. Drainage Area "Y"

The improvements within Drainage Area "Y" completed prior to September 2008 consisted of purchasing 9.2 acres of land for the basin site, installing chain link fence around the perimeter and between the upper and lower floor to control access, excavating and landscaping the basin, installing concrete ramps, walkways and an observation dock, and constructing the pump station to control the water level from storm events. The entire cost that was spent prior to September 2008 for Basin "Y" was \$979,740. Additionally the entire pipeline collection system cost that was constructed prior to September 2008 is \$1,798,973. The grand total of combined basin and pipeline collection system costs prior to September 2008 is \$2,778,713.

3. Drainage Area "BO"

The improvements within Drainage Area "BO" consisted of purchasing 13.6 acres of land for the basin site, installing a chain link fencing around the perimeter and excavating the site. The entire cost that was spent prior to September 2008 on Basin "BO" was \$144,783. Additionally the entire pipeline collection system cost that was constructed prior to September 2008 was \$687,709. The grand total of combined basin and pipeline collection system costs prior to September 2008 is \$832,492.

Work Completed After September 30, 2008

1. Fancher Creek Detention Basin

This work consisted of preparing a Dam failure inundation map, mitigation planting complete with an irrigation system, internal basin pipelines to provide for flood routing, improvements of the inlet channel to the basin consisting of heightening the banks of the channel to provide adequate freeboard, demolition and removal of old concrete weir structures and asphalt rubble, the excavation of 417,340 cubic yards of soil to provide the necessary volume to control the 100 year storm event flows and the (LOMR) with FEMA for floodplain reduction downstream of the basin. The total cost for these improvements was \$1,065,181. A location diagram of the Fancher Creek Detention Basin is attached as **Exhibit No. 10**.

2. Drainage Area "Y"

The Flood Control District completed improvements for the additional improvement adopted for the Master Plan in June 2009. The improvement consisted of the storm drain pipelines located in Tulare Avenue between Minnewawa and Clovis Avenues, and on Minnewawa Avenue between Kings Canyon and Laurel Avenues. The construction contract was identified as Contract "Y-62." The location of these facilities is shown **Exhibit No. 10**. The purpose of the installation of these facilities is to provide the community standard level of service to Drainage Area "Y," correcting the deficiency remaining after the removing an upstream portion of Drainage Area "Y" and placing it into Drainage Area "BO". The total cost of Contract "Y-62" was \$596,265.

3. Drainage Area "BO"

A private developer in conjunction with the City and District installed a segment of Master Plan 54-inch diameter storm drain along the east side of Fancher Creek and north of Tulare Avenue. This portion of storm drain was installed and plugged at both ends so that an adjacent and different developer could finish a portion of the Fancher Creek Trail that was about to be constructed above the storm drain. Installing the storm drain quickly and before the trail was constructed saved approximately \$60,000 in trail improvements that would have had to be removed and replaced if the storm drain construction had been delayed after the trail was constructed. The construction contract is referred to as Contract "BO-20." The location of Contract "BO-20" is shown on **Exhibit No. 11**. The total cost of Contract "BO-20" was \$98,237.

The District completed its Services Plan on October 13, 2004. The Environmental Impact Report (EIR) for this plan was completed November 14, 2007 as District Service Plan Master Environmental Impact Report SCH #1991111132. The changes in the drainage plans for Drainage Areas "W", "Y", and "BO" were made on June 17, 2009 and the changes were approved by a prior Notice of Exemption on July 9, 2008 as the changes were found to be in conformance with the 2004 District Services Plan Environmental Impact Report.

The majority of the aforementioned plans and environmental work were completed in-house and the total cost is undocumented, but no funds for such work are proposed under the grant. The benefit of such work however is that the Fancher Creek Flood Control Improvement Project is nearly "shovel ready" with only a limited amount of design work and approval of grant funding before construction contracts can be awarded.

No additional rights-of-way acquisition is needed. There are no remaining barriers that could delay the construction of the Project, other than the current \$2.2 million shortfall that requested as the State's match under this application. All Project approvals have been secured and local funding for the construction of the Project is already in place.

CEQA approval was obtained through the approval of the Draft and Final Environmental Impact Reports on the District's Services Plan and the Notice of Exemption as discussed above. While regulatory agency comments have been addressed in the CEQA process, additional permit clearances will be obtained from the U.S. Army Corps of Engineers, California Department of Fish and Game, and the Central Valley Regional Water Quality

Control Board as necessary. Minor design changes to the bid and construction documents may be needed to accommodate the permit requirements.

EXISTING DATA AND STUDIES

The claims and calculations contained in this work plan and in the subsequent attachments are primarily based on the following data and studies, attached to this application as Exhibits 16 through 21:

- City of Fresno 2008 Urban Water Management Plan Update (**Exhibit 16**)
- Final Environmental Impact Report (**Exhibit 17**)
- Fresno Metropolitan Flood Control Service Plan (**Exhibit 18**)
- Resolution of Support (**Exhibit 19**)
- California Regional Water Quality Control Board NPDES Permit (**Exhibit 20**)

PROJECT MAP

A regional map of the Project and surrounding area is attached as **Exhibit No. 1**. **Exhibit No. 2** is a diagram of the Project and is a helpful guide to many of the additional exhibits that describe the Project in more detail.

PROJECT TIMING AND PHASING

The Project has been structured to complement existing City, District, and privately raised funding with a match of State funding available under this IRWM Grant. This work is a portion of the local share for this project. Construction drawings and bid packages will be revised starting in June, with construction anticipated to begin in September 2011 or as soon thereafter as permitted by the grant rules. Project completion is anticipated no later than November 2013. A schedule is attached as **Exhibit No. 22**.

TASKS

Table 5 –Work Plan Outline

<i>Budget Category (a): Direct Project Administration Costs</i>
Task 1: Administration
<p>The work will generally be managed by the District under publicly bid contracts. Contracts may be awarded by the City of Fresno as needed to comply with Grant requirements. No additional work is proposed in the Fancher Creek Detention Basin under the Grant Program. Bid documents and contracts will be prepared to complete all the work within Basin “BO” and Drainage Area “BO” as designed and consistent with those used in public works contracts. The project will be advertised and awarded, with the lowest responsible bidder providing all required insurance, bonds and certifications. The City or FMFCD will publish notice-inviting bids, conduct pre-bid meetings, answer questions during the bid process, verify bids for completeness and competency, provide bid analysis and conduct bid opening.</p> <p>The expenditure will occur through standard public works project administered either by City or District. The City or District will perform all of the tasks listed above for the construction contracts in addition to measurement and payment, and change order management.</p> <p>Deliverables: Preparation of invoices and other deliverables as required.</p>
Task 2: Labor Compliance Program
<p>The completion of the basin, pipelines, pumping station and storm drains will be a prevailing wage project administered by the City or District in multiple contracts. City or District inspectors will conduct job site inspections to verify wage rates, benefits and employee identifications to comply with prevailing wage requirements. Contractor and sub-contractors will provide prevailing wage reports on a monthly basis with monthly invoices. The City or District will provide a contract administrator to verify that current wage and benefit requirements are met.</p> <p>Deliverable: Submission of Labor Compliance Program</p>
Task 3: Reporting
<p>The City of Fresno with assistance from the District will provide all internal progress reports including budget status, percent complete updates and change order status. The City will also provide summary status reports for submittal to DWR and other appropriate agencies at intervals spelled out in the Grant Agreement.</p> <p>Deliverables: Submission of quarterly, annual and final reports as specified in the Grant Agreement.</p>
<i>Budget Category (b): Land Purchase/Easement</i>
<i>The Project does not require any purchase of land in fee or easement.</i>

Budget Category (c): Planning/Design/Engineering/Environmental Documentation
Task 4: Assessment and Evaluation
FMFCD will supervise and arrange the final design. CEQA documents are complete.
Deliverables: Hydrology Study, Final EIR, Master Plan of Drainage.
Task 5: Final Design
<p>5.1 Final Hydrology/Hydraulics</p> <p>5.1.1 Hydrology – detailed hydrology analysis including hydrology model selection, rainfall patterns, recurrence intervals.</p> <p>5.1.2 Hydraulics – development of stream flow hydrographs, hydrograph attenuation, basin capacity analysis.</p> <p>5.1.3 Flood Plain Analysis – flood limits, flood depths, FEMA map modifications.</p> <p>5.2 Rough Grading</p> <p>5.2.1 Basin grading plans</p> <p>5.3 Structural Plans</p> <p>5.3.1 Basin Inlet Structures.</p> <p>5.3.2 Basin Outlet Structures.</p> <p>5.3.3 Storm Drain structures including manholes and transitions.</p> <p>5.4 Storm Drain Plans</p> <p>5.4.1 Plan and Profile.</p> <p>5.4.2 Typical Sections.</p> <p>5.4.3 Manhole Details.</p> <p>5.4.4 Utility crossings.</p>

<p>5.6 Utility Relocation Plans <i>None Required</i></p> <p>5.7 Traffic Control Plans Traffic control plans will be specified and provided by the construction contractor.</p> <p>5.8 Composite Utility Plans Composite utility plans will not be provided as most of the work is outside public streets and the utilities.</p> <p>5.9 Coordinate Control Plans FMFCD will provide its usual plans and coordinate the survey control.</p>
Deliverables: Completion of project plans and specifications at the 90 percent and final level.
Task 6: Environmental Documentation
<p>6.1 Draft EIR. See 6.3 below. A copy of the 2004 District Services Plan Master Environmental Impact Report.</p> <p>6.2 Technical Studies including noise, traffic, water supply, flood control, air quality, archeological, etc. See the Master Environmental Impact Report.</p> <p>6.3 Final EIR. The Fresno Metropolitan Flood Control District Board of Directors approved the selection of a preferred alternative for Drainage areas "Y" and "BO" on July 9, 2008 to accommodate a change in the planned land use within the Drainage Areas requiring amendment of the Strom Drainage and Flood Control Master Plan. As required by the California Environmental Quality Act, District staff studied the proposed changes and concluded that the project was covered and in and is in conformance with the 2004 District Service Plan Master Environmental Impact Report SCH # 1991111132. Pursuant to CEQA, on August 28, 2008 the District filed a Notice of Exemption with the County of Fresno. On June 17, 2009 the Board of Directors held a public hearing and adopted the amended Master Plan for Drainage Area, "Y" and "BO".</p>
Deliverable: Approved and adopted CEQA/NEPA documentation
Task 7: Permitting
<p>7.1 Grading Permits - The basin contractor will not need to obtain permits for grading or work with the basin. A City grading permit will be obtained as needed for any grading proposed at the location of placement of the material and coverage under the State's General Construction Permit for disturbed areas over 1 acre out the basin.</p> <p>7.2 Construction Permits –The contractor will be required to obtain construction permits for the work within public right-of-way, including roadway paving, permits for crossing Fancher Creek, erosion control, etc.</p> <p>7.3 Corps of Engineers 404 permit.</p> <p>7.4 Dept. of Fish and Game 1601 Permit.</p>

7.5 Construction General Permit, State Water Quality Control Board Order Number 2009-0009-DWQ.
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Deliverables: Section 1601, 404, 401, NPDES, etc.

Budget Category (d): Construction/Implementation
Task 8: Construction Contracting
<p>Subtask 8.1 Basin “BO”: District will prepare contract documents including contract specifications, special provisions, contract, bid forms, subcontractor lists, DBE/WBE compliance, prevailing wage requirements, bond and insurance requirements, etc. Topography will be provided to determine the grading necessary to complete the final basin configuration. A pre-bid meeting will be conducted if required. Prepare and publish notice-inviting bids. Conduct bid opening and selection of apparent lowest responsible bidder. Prepare bid analysis and award of contract. Conduct pre-construction meeting. Issue notice to proceed.</p>
Deliverables: Advertisement for bids; pre-bid contractors meeting; evaluation of bids; award contract
Task 9: Construction
Subtask 9.1 Basins
<p>9.1.1 Mobilization and Site Preparation – Contractor move in, clear and grub, dust control, dewatering.</p> <p>9.1.2 Excavation/Rough Grading – excavate, haul export to approved location, rough grade access roads and temporary haul roads. District or City will award contract to excavate and grade the basin and transport the material away from the site and arrange with a nearby property owner for its acceptance on their property. The grading of the private property will not be included in the Grant work so that no disposal costs other than transportation are included in the grant.</p> <p>9.1.3 Structures – construct concrete inlet and outlet structure including gates, valves and appurtenances.</p> <p>9.1.4 Erosion Control – construct all temporary and permanent erosion control measures in accordance with plans and specs.</p> <p>9.1.5 Water Quality Best Management Practices – Utilize BMP’s as called out in the plans and specifications and/or the State General Permit.</p> <p>9.1.6 Provide planting plan for water quality control plantings and side slope protection following excavation of Basin “BO”.</p> <p>9.1.7 Paving – construct roadway base and paving structural sections in all paved areas in accordance with the plans and specs.</p>

Subtask 9.2 Connecting Pipeline
<p>9.2.1 Mobilization and Site Preparation – Contractor move in, clear and grub, dust control.</p> <p>9.2.2 Traffic Control -Provide any required traffic control such as delineators, one-way control, detour signage, etc. for trench areas with public right of way.</p> <p>9.2.3 Trench Excavation – remove pavement within trench area, excavate to bottom of bedding, fill and compact bedding to grade.</p> <p>9.2.4 Construct manholes, headwalls and other structures.</p> <p>9.2.5 Install pipe in accordance with plans.</p> <p>9.2.6 Backfill – place approved backfill over pipe. Compact to required density.</p> <p>9.2.7 Paving – construct paving base and asphaltic concrete structural section within public streets and paint new striping, as indicated on the plans.</p>
Subtask 9.3 Performance Testing and Demobilization
<p>9.3.1 Review shop drawings and submittals, such as concrete mix design, rebar shop drawings, valves, gates and appurtenant shop drawings</p> <p>9.3.2 Provide soil compaction tests, including soil density and moisture content</p> <p>9.3.3 Provide concrete strength tests including compressive and shear strength</p> <p>9.3.4 Provide R-value analysis for all sub-grade under paved areas</p>

<i>Budget Category (e): Environmental Compliance/Mitigation/Enhancement</i>
Task 10: Environmental Compliance/Mitigation/Enhancement
<p>10.1 While no archeological finds are anticipated, the Construction Manager will inform his inspectors to provide periodic monitoring for artifacts of significant value and if any questionable items are encountered, engage an archeological consultant.</p> <p>10.2 The Construction Manager will coordinate with District’s environmental staff to monitor impacts to endangered species, protection or restoration of habitat, and mitigation measures identified in the Project review. The only anticipated issue is appropriately timing the removal of large and undesirable non-native trees at the storm drain crossing of Fancher Creek. The tree removal will be times so as not to remove the trees during the raptor-nesting season.</p>

<i>Budget Category (f): Construction Administration</i>
Task 11: Construction Administration
11.1 Construction Manager – provide general over site of the project, ensuring proper prosecution and progress.
11.2 Inspection – provide continuous inspection of all materials and workmanship with regard to contract work items.
11.3 Measurement and Payment – approve all contractor monthly payment requests. Verify all quantities of in-place contract items for which payment is requested.
11.4 Change Management - Approval of all extra work and corresponding change orders. Review and approval of extra work reports.
11.5 Schedule – Provide schedule updates to baseline schedule on a monthly basis. Review and approve all delay change orders.
11.6 Daily Reports/Diaries – review and approve all daily reports including extra work, weather delays, unforeseen changes, material deliveries and rented equipment working times.
11.7 Certifications – provide certifications of line and grade for all rough grade and finished grade work. Prove acceptance of furnished equipment and products.
11.8 Provide final certification of the Project.

Exhibit 1
Regional Map

Exhibit 2

Key Map

Exhibit 3

Changes to Storm Drainage and Flood Control Master Plan in Drainage Area W, Y, BO

Exhibit 4
Pre-Project Floodplains

Exhibit 5

Post-Project Floodplains

Exhibit 6
Fancher Creek Watershed

Exhibit 7

Project Improvements – Master Plan Facilities

Exhibit 8

Project Improvements – Basin Improvements

Exhibit 9

Project Improvements – Non-Potable Water Line

Exhibit 10

Project Improvements – Contract Y-62

Exhibit 11

Project Improvements – Contract BO-20

Exhibit 12

Direct Discharge Locations Being Removed

Exhibit 13
Drainage Area Y

Exhibit 14

County and FID Letters of Support

Exhibit 15

Fancher Creek Detention Basin

Exhibit 16

Urban Water Management Plan

Exhibit 17

Final Environmental Impact Report

Exhibit 18
FMFCD Service Plan

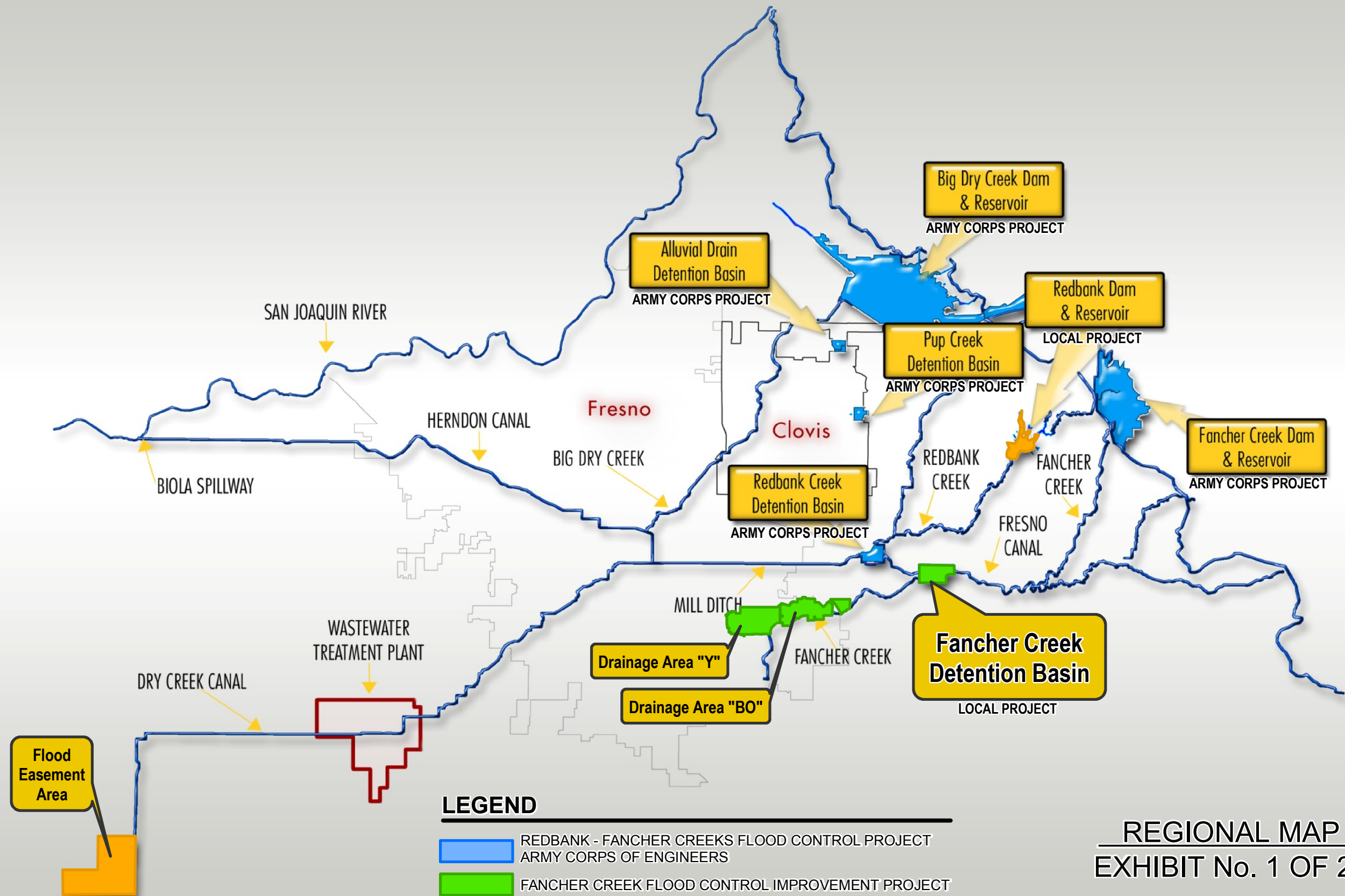
Exhibit 19
Resolution of Support

Exhibit 20
NPDES Permit

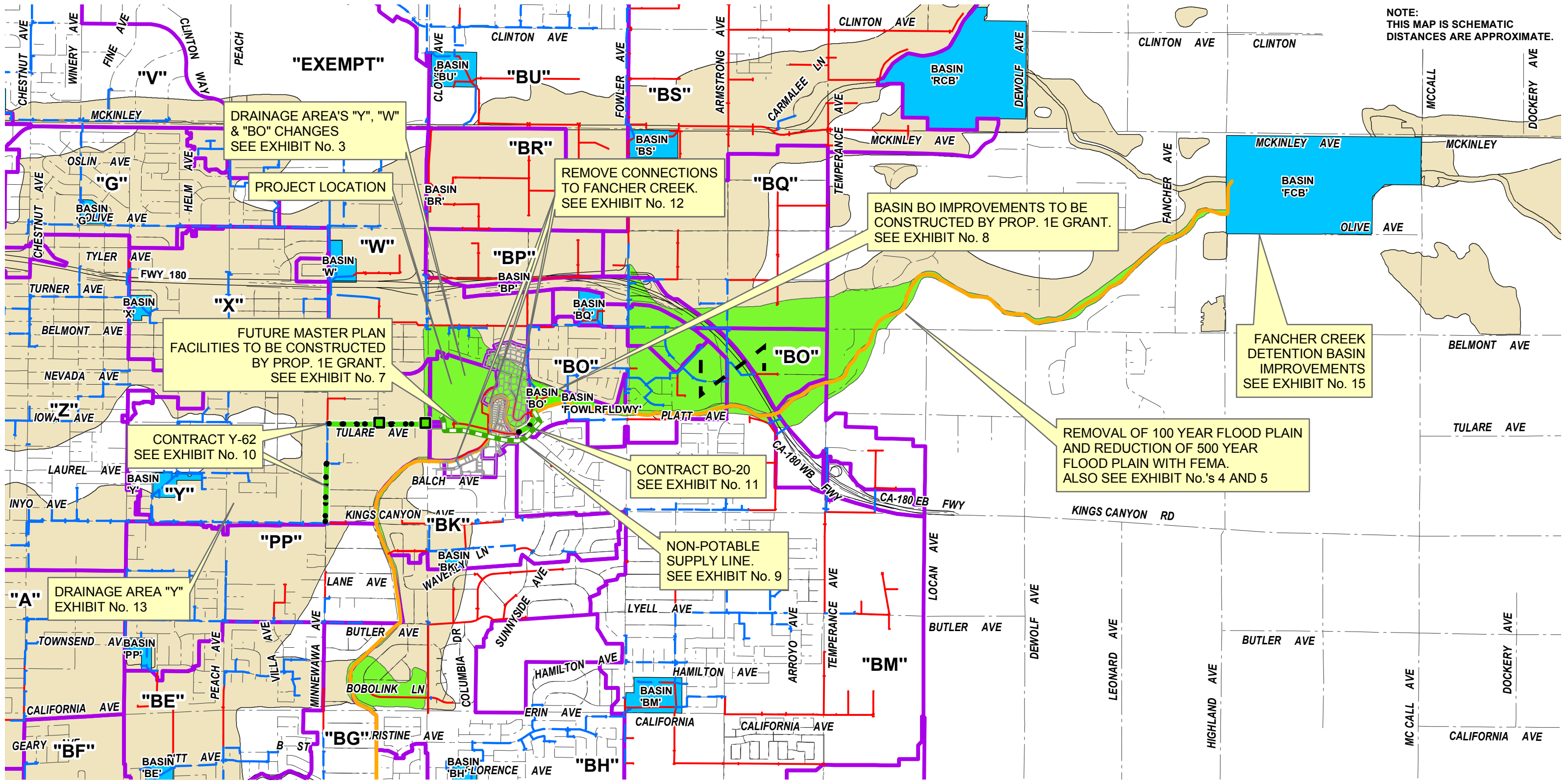
Exhibit 21

Groundwater Management Plan

Exhibit 22
Schedule



REGIONAL MAP
EXHIBIT No. 1 OF 22



NOTE:
THIS MAP IS SCHEMATIC
DISTANCES ARE APPROXIMATE.

LEGEND

- | | | | |
|--|--|--|---|
| | Existing Facilities Constructed | | Drainage Area Boundary |
| | Facilities To Be Constructed By Prop "1E" Grant. | | FEMA 100 Year Flood Zones To Be Removed |
| | Existing Master Plan Facilities | | FEMA 500 Year Flood Zones To Be Reduced |
| | Future Master Plan Facilities | | |

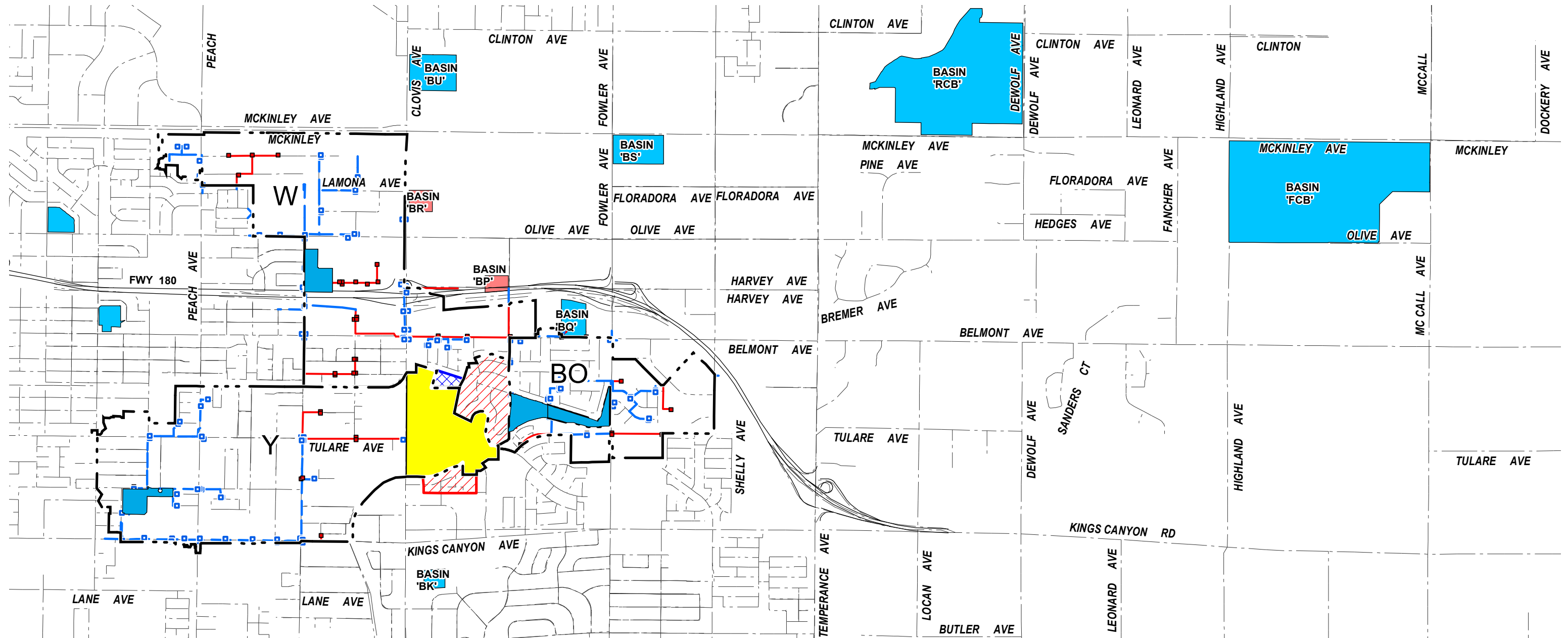


Prepared By: Wade Tavares
Date: 4/5/2011
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KEY MAP

FANCHER CREEK FLOOD CONTROL IMPROVEMENT PROJECT

EXHIBIT No 2 OF 22



LEGEND

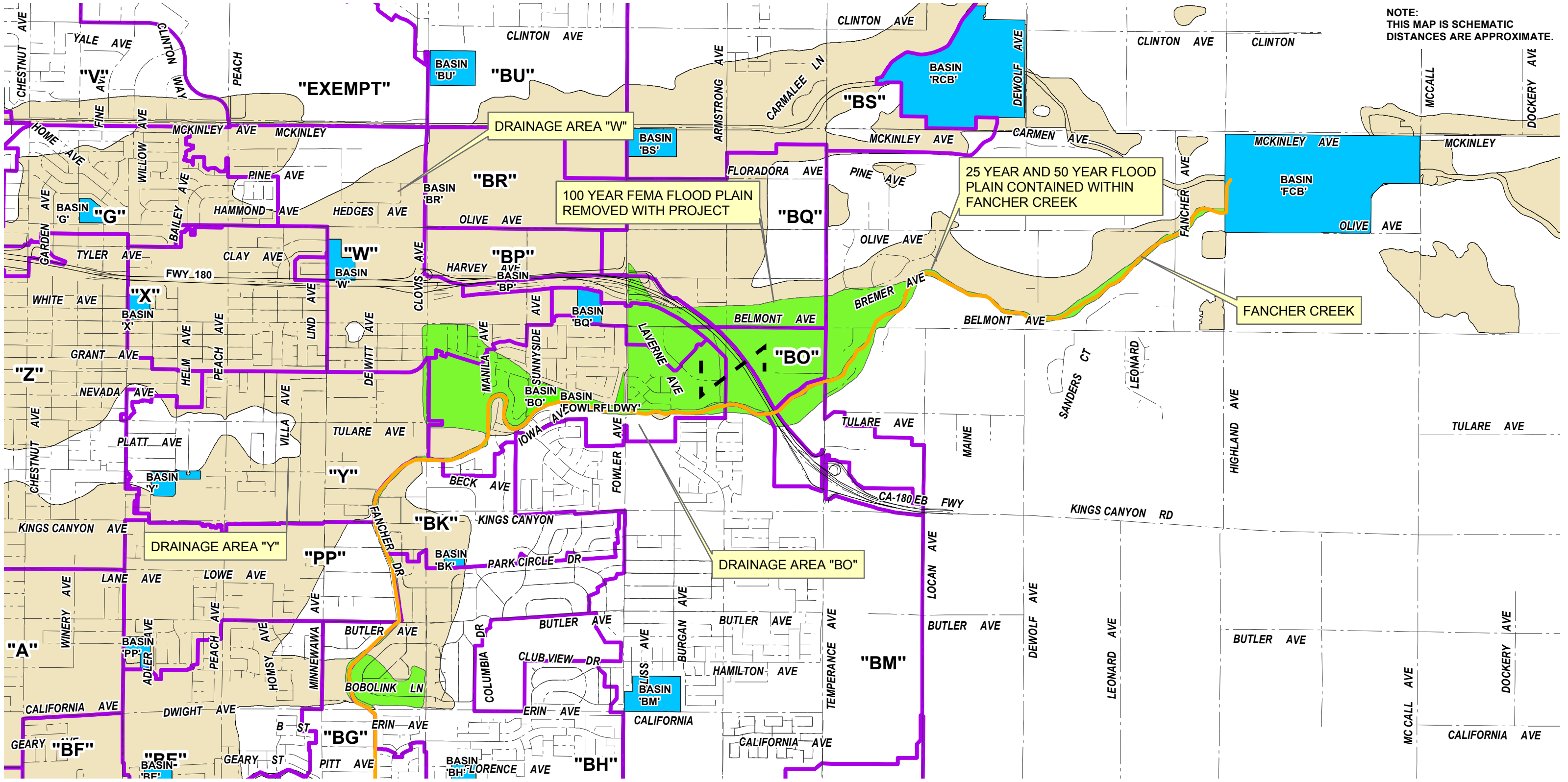
- Drainage Area Boundary
- Future Master Plan Facilities
- Existing Master Plan Facilities
- Existing Basin
- Existing Drainage Area "Y" Portion(99.8 Acres)
To Be Shifted Into Drainage Area "BO"
- Existing "Exempt" Areas Currently Receiving
Service To Fancher Creek To Be Added To The
Drainage Area "BO" System 68.2 Acres) "Added Service Area"
- Existing Drainage Area "W" Portion (5.7 Acres)
To Be Shifted Into Drainage Area "BO"



1" = 2500'

CHANGES TO STORM DRAINAGE AND FLOOD CONTROL MASTER PLAN IN LOCAL DRAINAGE AREAS "W", "Y" & "BO"

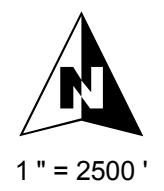
EXHIBIT No. 3 OF 22



NOTE:
THIS MAP IS SCHEMATIC
DISTANCES ARE APPROXIMATE.

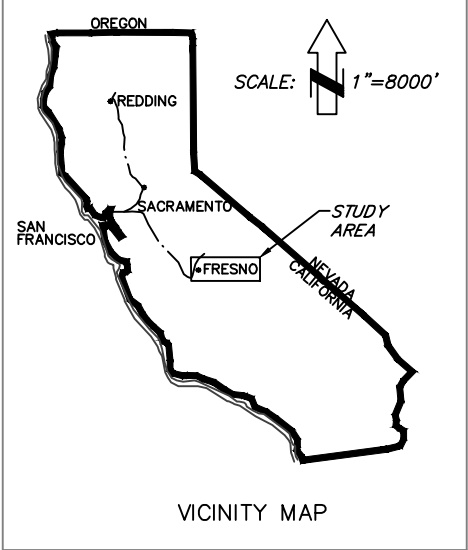
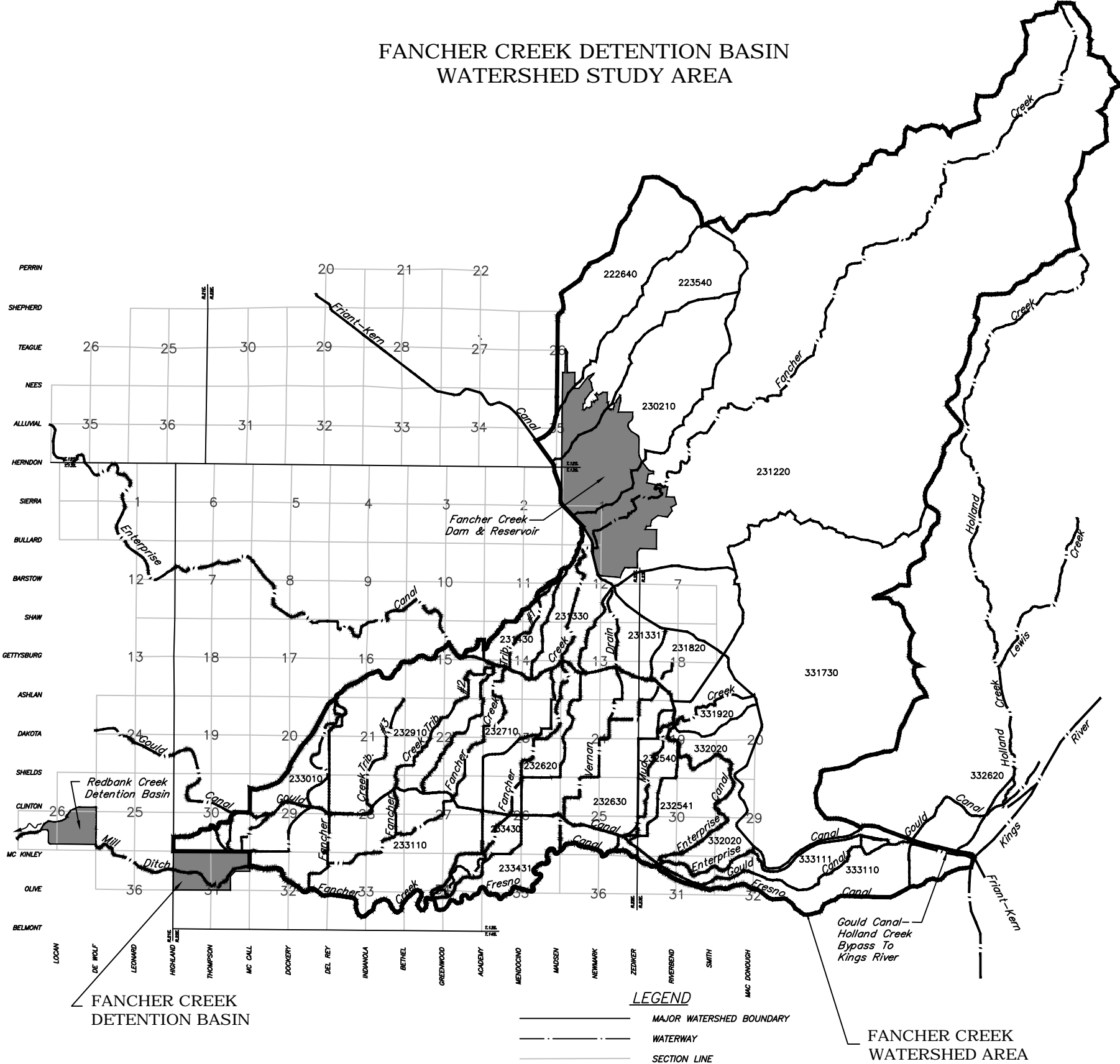
LEGEND

- Drainage Area Boundary
- 25 Year and 50 Year Floodplain
- 100 Year FEMA Floodplains To Be Removed
- 500 Year Floodplain Pre



Prepared By: Wade Tavares
Date: 4/5/2011
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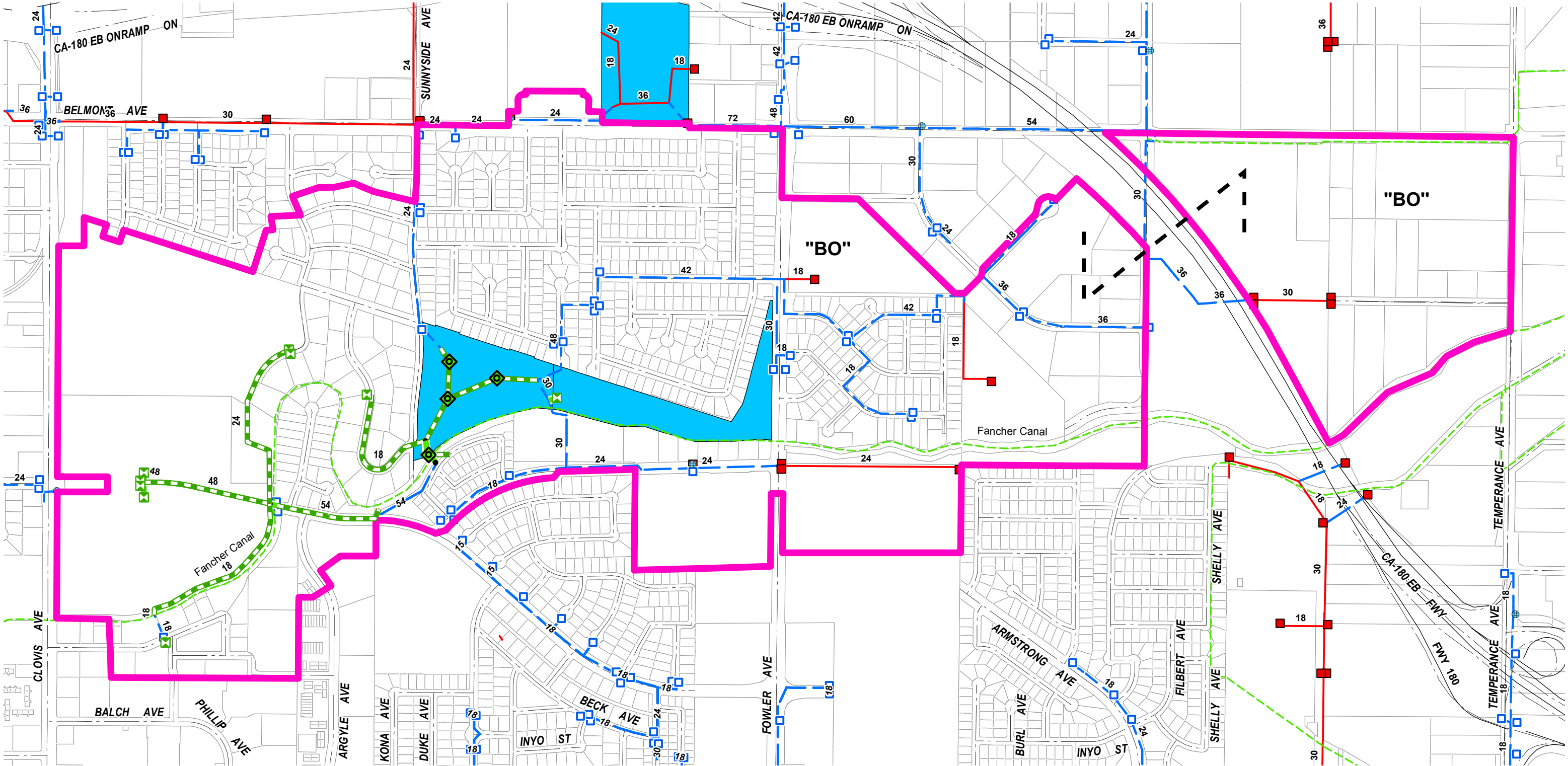
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Plot by: wadet Apr 11, 2011 - 4:00pm



**FANCHER CREEK
WATERSHED AREA**
EXHIBIT No. 6 OF 22

B.C. & F. FILE NO. 98-0139
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V1 WSBNDY.PC2
REVISION DATE 6/19/02
LAST REVISION DATE 4/06/11 FMFCD
FMFCD PATH: K:\Autocad\DWGS\EXHIBIT\MISC\Fancher Creek Watershed dwg.dwg

NOTE:
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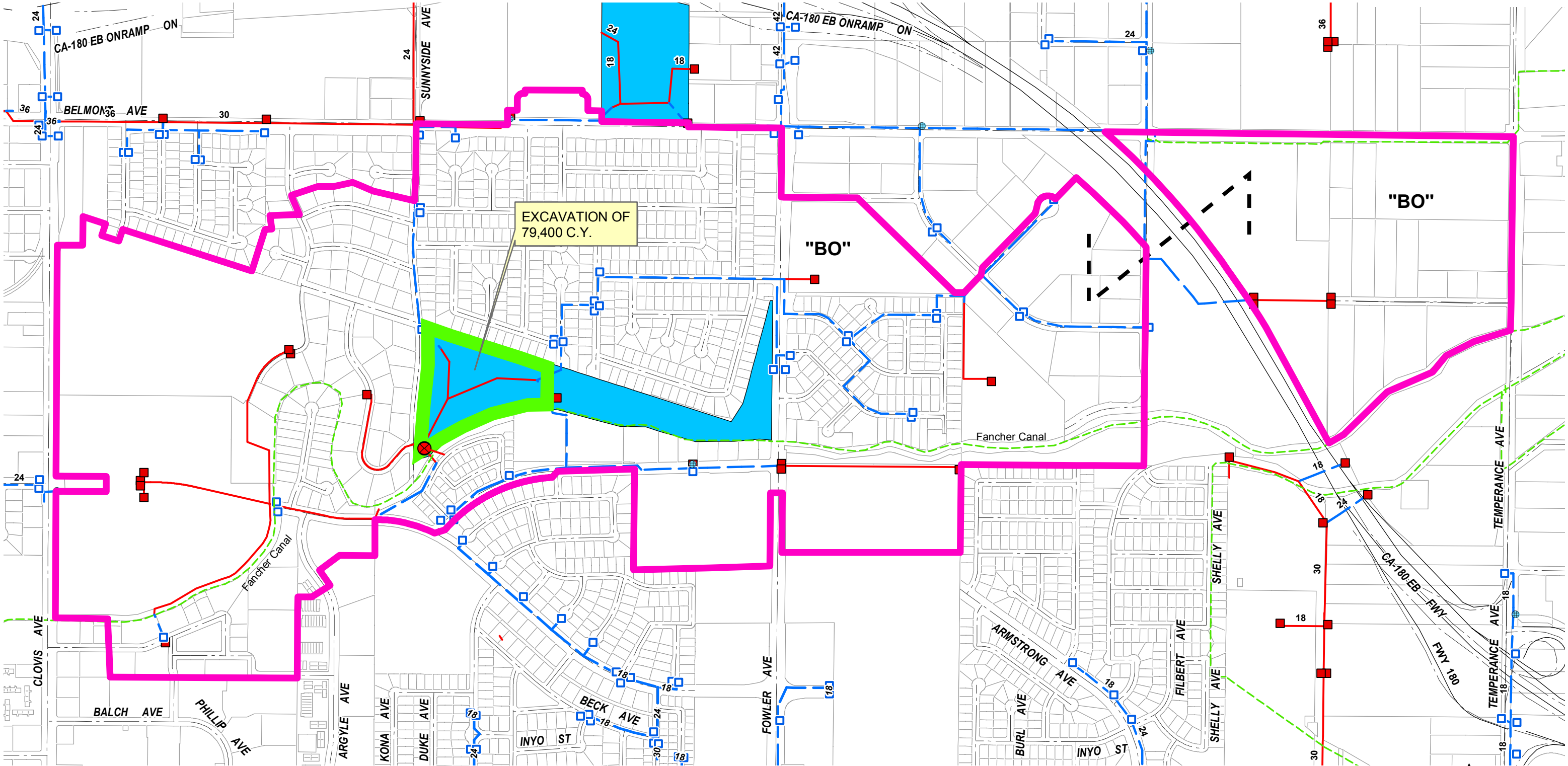
- Drainage Boundary "BO"
- Existing Master Plan Facilities
- Future Master Plan Facilities
- - - Future Master Plan Facilities To Be Designed & Constructed By Prop "1E" Grant



PORTION OF FUTURE PROJECT IMPROVEMENTS BY PROP. "1E"

EXHIBIT No. 7 OF 22

NOTE:
THIS MAP IS SCHEMATIC
DISTANCES ARE APPROXIMATE.



LEGEND

- Drainage Boundary "BO"
- Existing Master Plan Facilities
- Future Master Plan Facilities
- Landscaping Irrigated With Surface Water And 79,400 C.Y.
Excavation And Removal From Basin "BO" With Prop. 1E Grant
- Pump Station To Be Constructed With Prop. 1E Grant

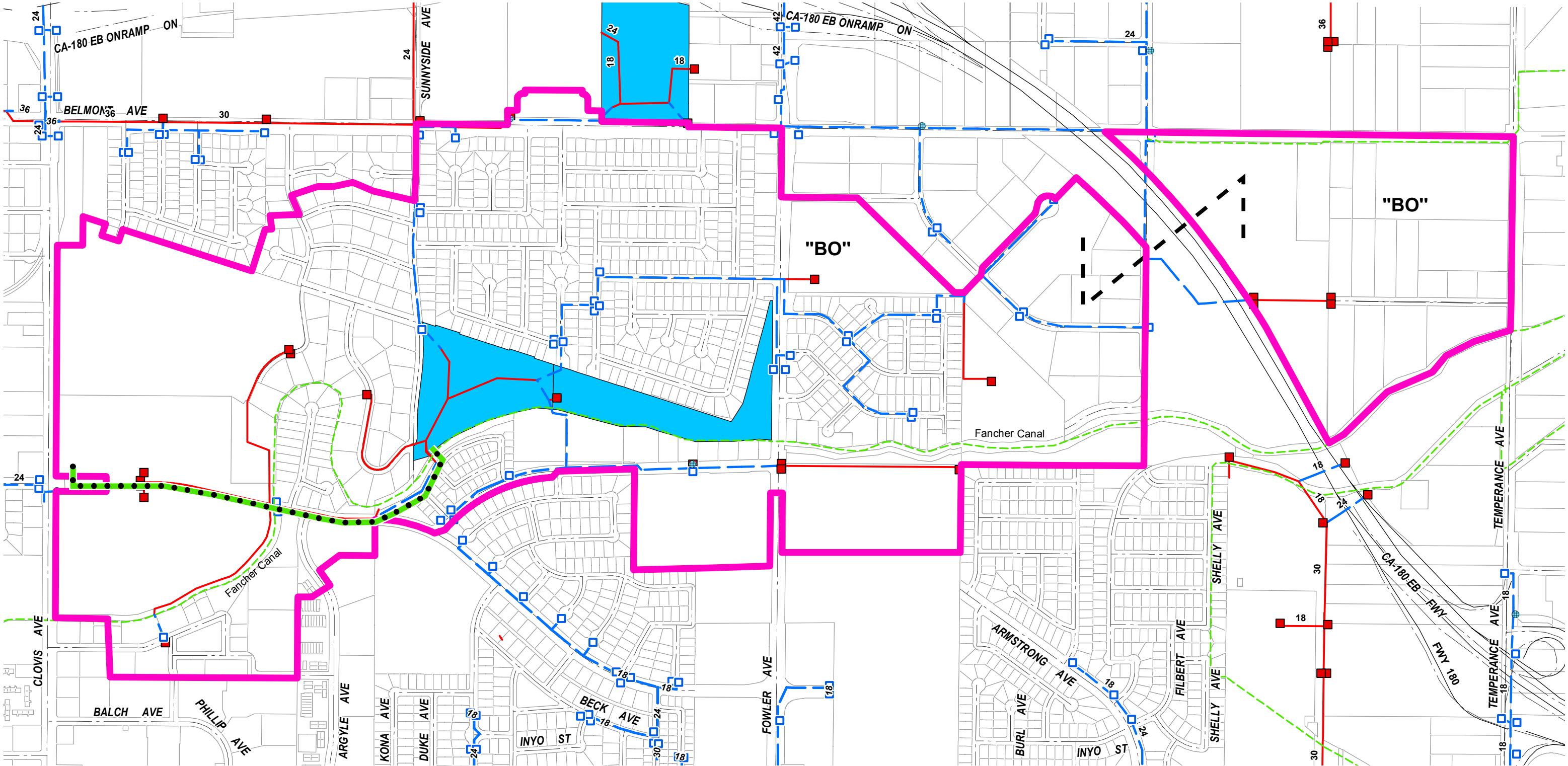


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Printing Date: 3/11/2011
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**PORTION OF FUTURE PROJECT
IMPROVEMENTS BY PROP. "1E"**

EXHIBIT No. 8 OF 22

NOTE:
THIS MAP IS SCHEMATIC
DISTANCES ARE APPROXIMATE.

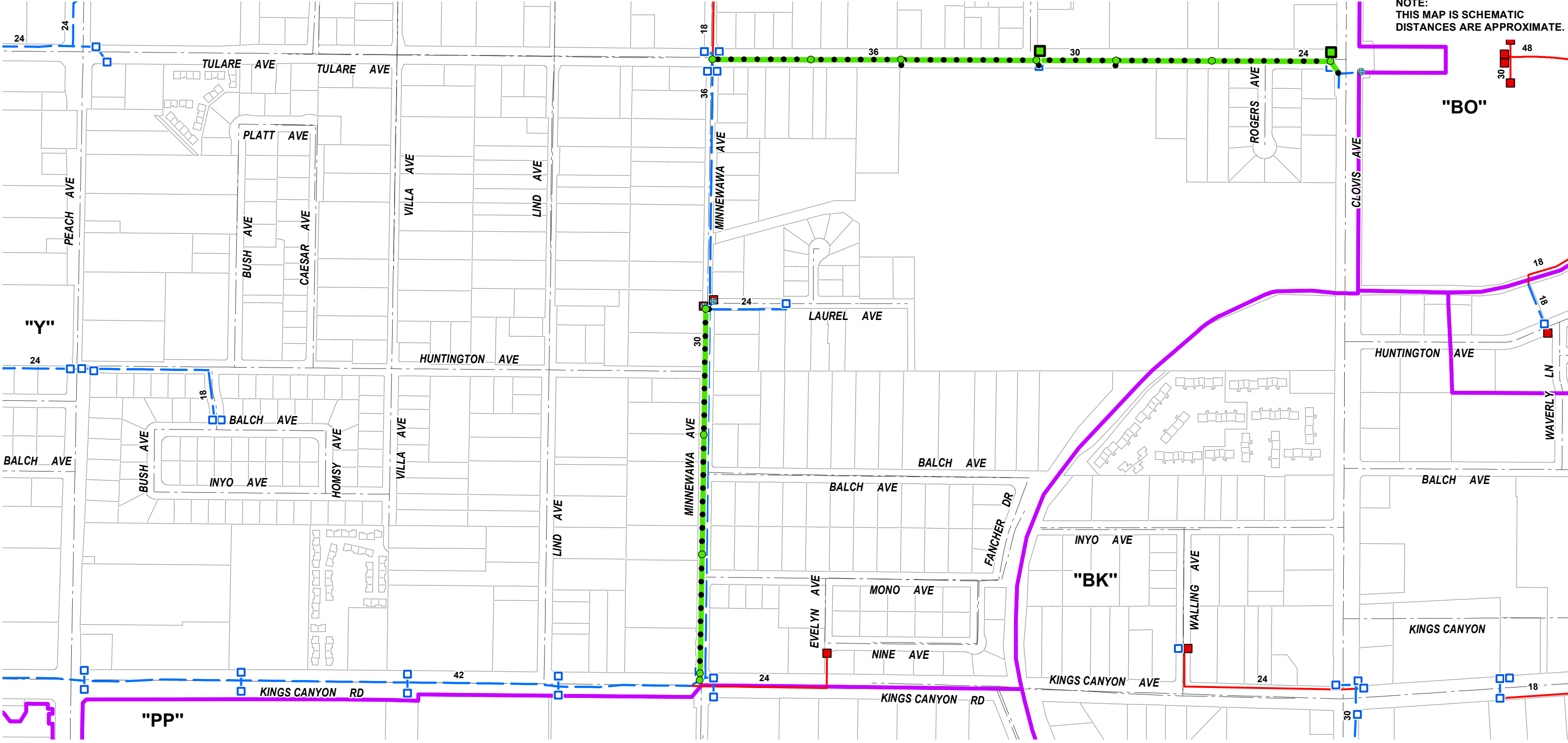


LEGEND

- Drainage Boundary "BO"
- Existing Master Plan Facilities
- Future Master Plan Facilities
- Non-Potable Storm Water Supply Line



PORTION OF FUTURE PROJECT IMPROVEMENTS BY PROP. "1E"



NOTE:
THIS MAP IS SCHEMATIC
DISTANCES ARE APPROXIMATE.

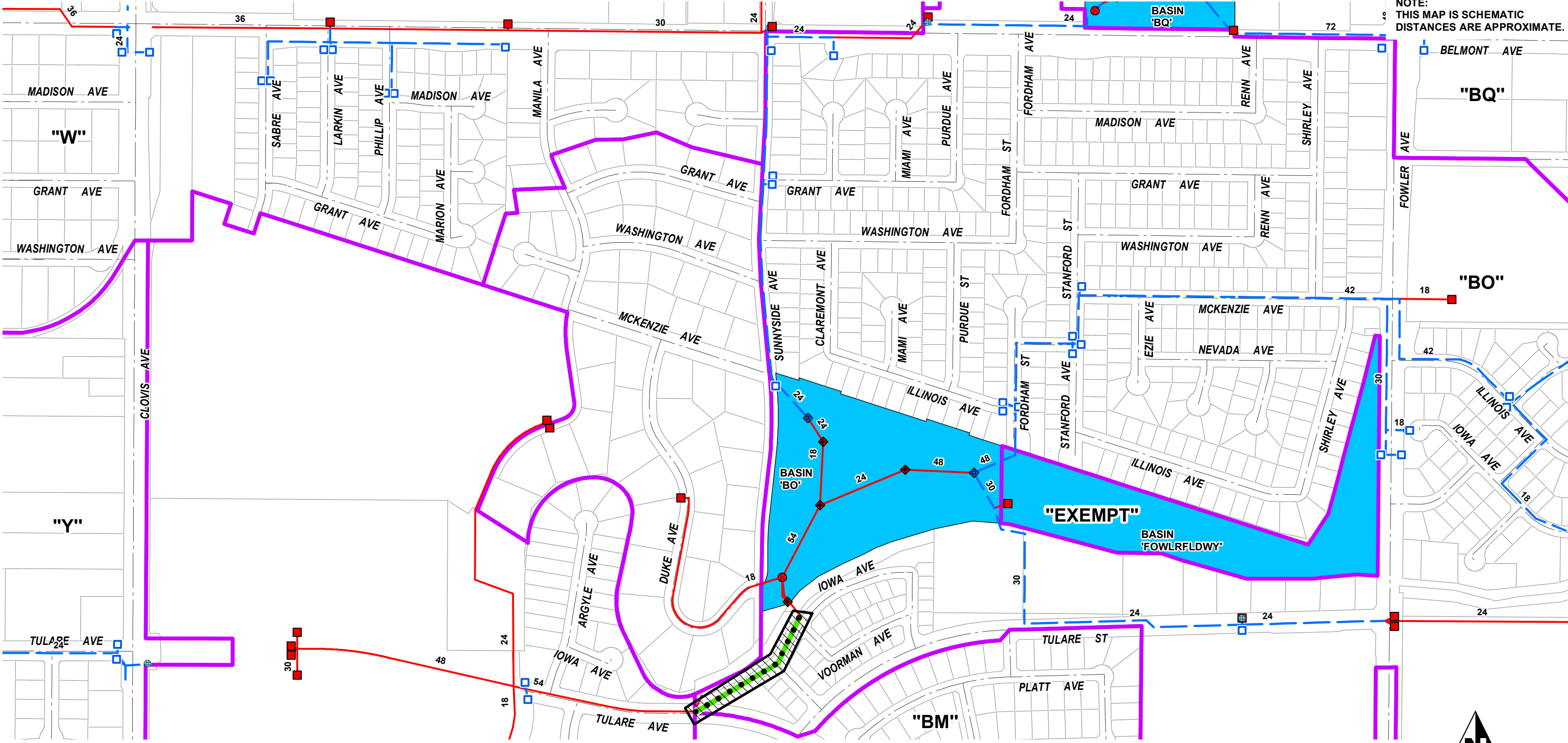
LEGEND

- Existing Master Plan Facilities
- Future Master Plan Facilities
- Contract Y-62 Master Plan Facilities Constructed
- Drainage Area Boundary



**RECENT PROJECT IMPROVEMENTS
FOR PROP. "1E" CREDIT**

CONTRACT "Y-62"
EXHIBIT No. 10 OF 22



LEGEND

- Existing Master Plan Facilities
- Future Master Plan Facilities
- Contract BO-20 Master Plan Facilities Constructed
- Drainage Area Boundary
- Existing Storm Drain Easement

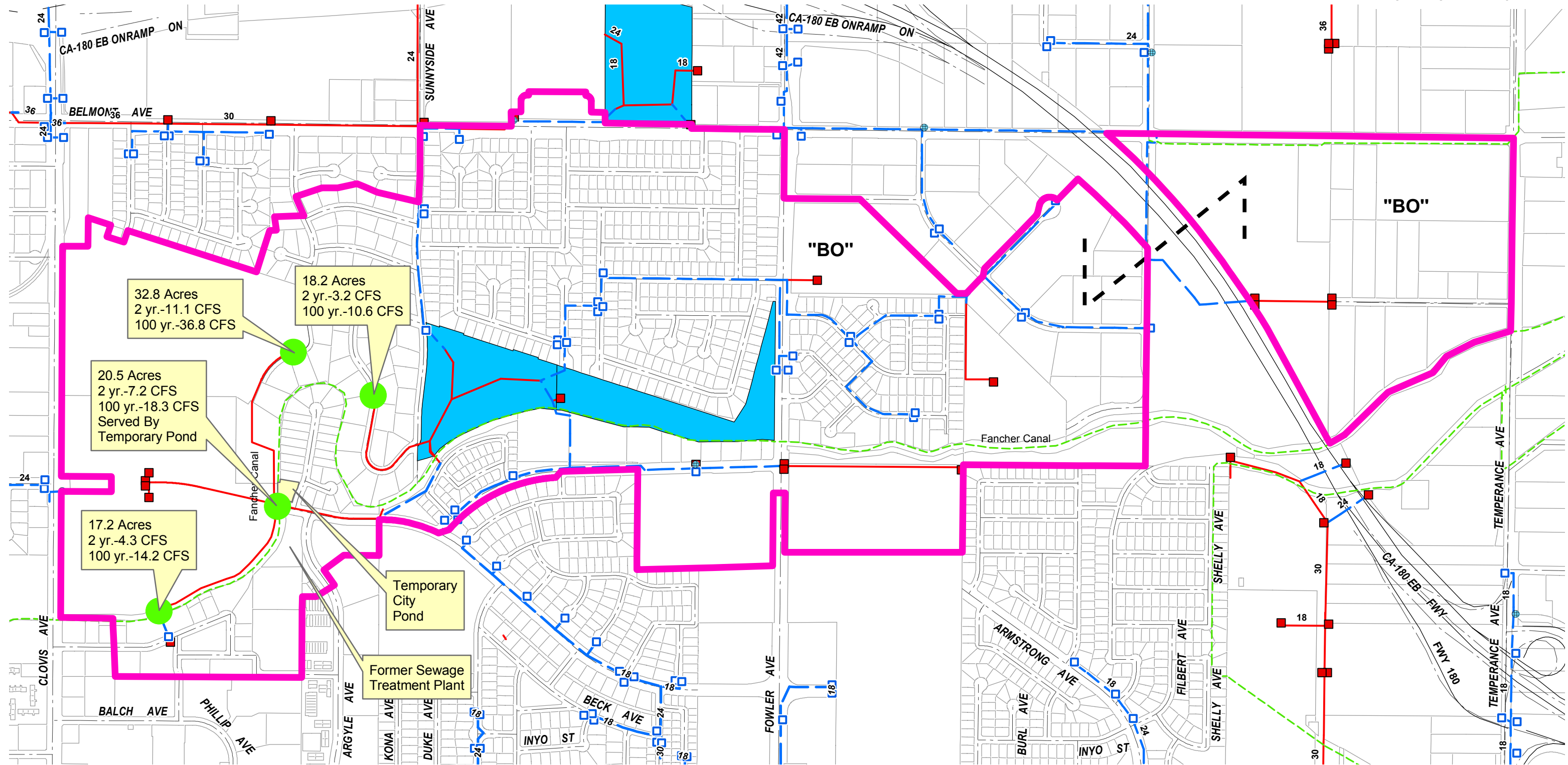


1" = 400'

**RECENT PROJECT IMPROVEMENTS
FOR PROP. "1E" CREDIT**

CONTRACT "BO-20"
EXHIBIT No. 11 OF 22

NOTE:
THIS MAP IS SCHEMATIC
DISTANCES ARE APPROXIMATE.



LEGEND

— Drainage Boundary "BO"

— Existing Master Plan Facilities

— Future Master Plan Facilities

● Locations Of Direct Discharges
Removed From Fancher Creek
And Temporary County Pond



1" = 700'



DIRECT DISCHARGES TO FANCHER CREEK & TEMPORARY POND

EXHIBIT No. 12 OF 22

NOTE:
THIS DRAWING IS SCHEMATIC,
DISTANCES ARE APPROXIMATE.



EXHIBIT 13 OF 22

LEGEND

- Existing Master Plan Facilities
- Future Master Plan Facilities
- Drainage Area "Y" Boundary

SCALE 1"=1200'

FANCHER CREEK IMPROVEMENT PROJECT
DRAINAGE AREA: "Y"



Exhibit "14"



County of Fresno

DEPARTMENT OF PUBLIC WORKS AND PLANNING
ALAN WEAVER, DIRECTOR

July 1, 2008

RECEIVED
JUL 02 2008

Jerry Lakeman, District Engineer
Fresno Metropolitan Flood Control District
5469 E. Olive Avenue
Fresno, CA 93727

FRESNO METROPOLITAN
FLOOD CONTROL DISTRICT

Dear Jerry,

Subject: Drainage Service to Tracts 1589, 1681 and 1824

The Department understands that the District is updating the Storm Drainage and Flood Control Master Plan for the area in and around the proposed Fancher Creek Town Center. Two areas easterly of the Fancher Creek Town Center have historically been excluded from urban drainage planning. The subject subdivisions were developed in 1961, 1964 and 1972. The drainage conditions for the development of these tracts were adopted before the planning of urban storm drainage systems in the area.

As there was no master urban drainage plan at that time, the developments were approved with drainage discharges to the nearby Fancher Creek. Two 21-inch corrugated metal pipelines were installed to the creek. These pipelines have completed their useful life and will soon be need of replacement. Another intertie located south of Fancher Creek and east of Clovis Avenue, Tract 1824, has an 18-inch concrete pipeline discharge. The pipeline of Tract 1824 is salvageable and the County is willing to transfer its rights and pipeline easements to the District once the connection is made to the District's system.

Understanding that the District is updating the urban drainage plans in the area, the Department would encourage the District to provide service to each of the subject subdivisions. This would avoid the need to replace the deteriorated 21-inch diameter CMP pipelines in well established landscaped areas. Replacing these pipelines in their current location would be a significant undesirable impact to the nearby landowners.

The areas surrounding these tracts have developed and these subdivisions are no longer isolated island of development. Incorporating drainage service into the new drainage plan would also provide the opportunity of treatment of the storm water in the District's basin system in lieu of direct and untreated discharges to Fancher Creek.

Jerry Lakeman
July 1, 2008
Page 2

Such improvement would demonstrate greater compliance with the local multi-agency National Pollution Discharge Elimination System (NPDES) permit for the purpose of improving water quality by reducing storm water pollutants from reaching Fancher Creek.

The County of Fresno requests incorporation of drainage service to Tracts 1961, 1964 and 1824 with the adoption of a new drainage plan.

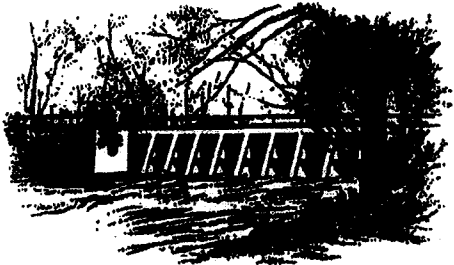
Sincerely,



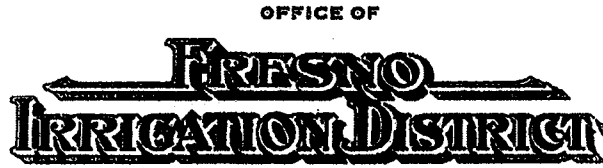
for Alan Weaver, Director
Department of Public Works and Planning

Enc.

Exhibit "14"



YOUR MOST VALUABLE RESOURCE - WATER



OFFICE OF
TELEPHONE (559) 233-7161
FAX (559) 233-8227
2907 S. MAPLE AVENUE
FRESNO, CALIFORNIA 93725-2218

July 1, 2008

Jerry Lakeman, District Engineer
Fresno Metropolitan Flood Control District
5469 E. Olive Ave
Fresno, CA 93727

Re: Fancher Creek Town Center
Removal of Temporary Fancher Creek Drainage Connections
Tracts 1589, 1681, and 1824

Dear Jerry:

In reinforcement of our telephone discussion, to the extent the Flood Control District has an opportunity to eliminate direct discharges to Fancher Creek in the vicinity of the Fancher Creek Town Center, the Fresno Irrigation District (FID) would request that FMFCD seize the opportunity. There are at least three (3) direct discharges just easterly of the Fancher Creek Town Center that FID would like to see removed.

Reducing direct discharges is very helpful in managing storm flows in the irrigation canal system. While the canals split into several branches downstream, reducing discharges of storm water to only those from FMFCD basin greatly enhances the management and control of storm water in the canal system. Connecting the currently non-served areas to a newly planned FMFCD system also improves the water quality in the canal system, making it easier to utilize the water downstream for beneficial purposes.

Sincerely,

Laurence Kimura
Assistant General Manager

cc: Gary Serrato, Fresno Irrigation District
Bill Stretch, Fresno Irrigation District

H:\FMFCD\FMFCD-FancherExempt Area-Ltr-2008-0701.doc

BOARD OF DIRECTORS President JEFFREY G. BOSWELL, Vice-President JEFF NEELY
EDDIE NIEDERFRANK, STEVE BALLS, TOM E. STEFFEN, General Manager GARY R. SERRATO

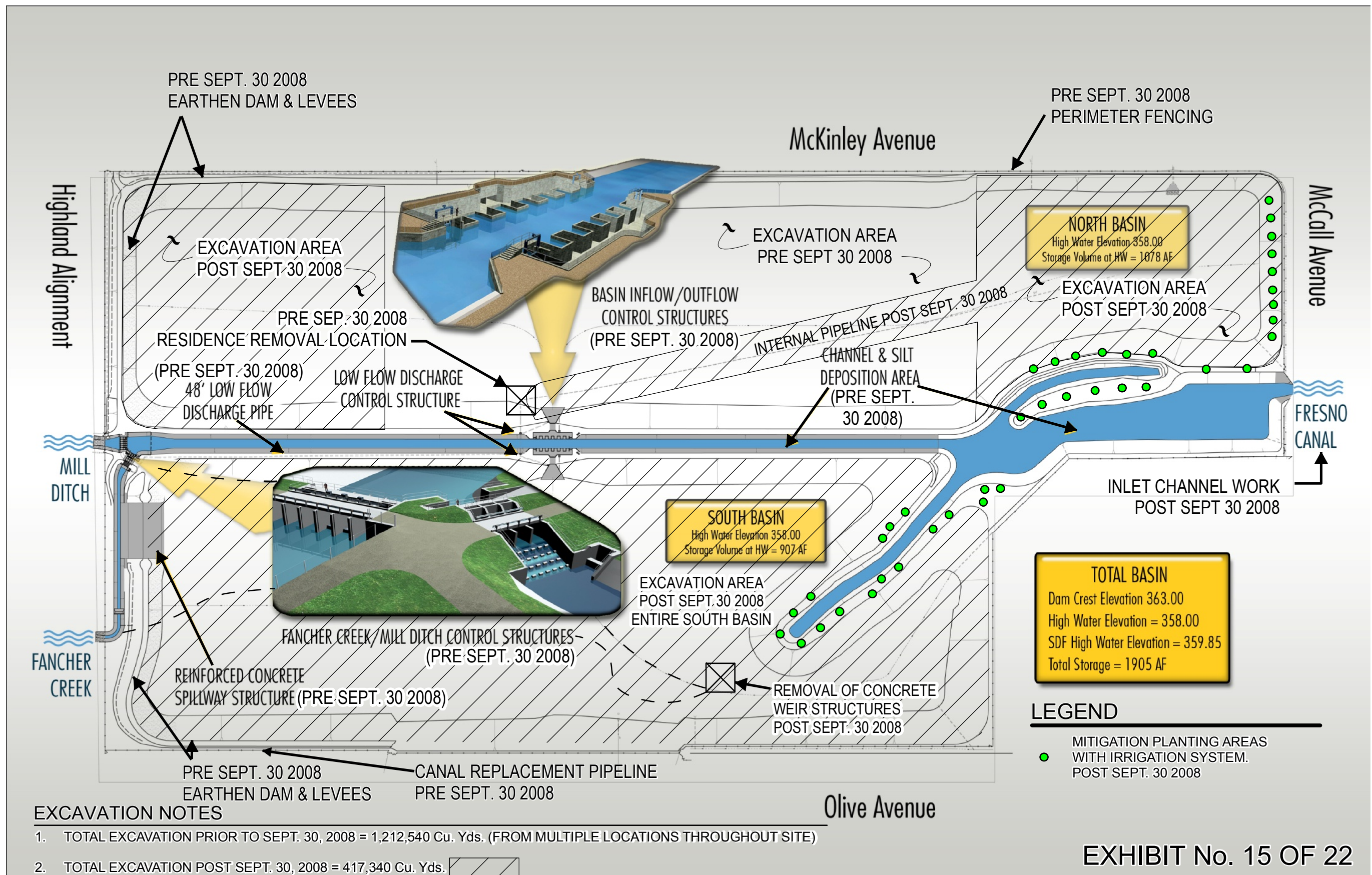


EXHIBIT NO. 19 of 22

RESOLUTION NO. 2011-693

**BEFORE THE BOARD OF DIRECTORS OF THE
FRESNO METROPOLITAN FLOOD CONTROL DISTRICT**

**RESOLUTION OF SUPPORT
FANCHER CREEK FLOOD CONTROL IMPROVEMENT PROJECT**

WHEREAS, the State of California Disaster pursuant to the Preparedness and Flood Prevention Bond Act of 2006 (Proposition 1E) has released applications to obtain grants in the first round of funding of the Integrated Regional Water Management Stormwater Flood Management Grants; and

WHEREAS, grants of up to \$30,000,000 are available to provide a fifty percent project cost match to construct facilities that meet public safety needs and provide multiple public benefits; and

WHEREAS, the City of Fresno proposes to apply for such a grant identified as the Fancher Creek Flood Control Improvement Project; and

WHEREAS, Proposition 1E Stormwater Flood Management grants require a 50 percent local cost sharing match; and

WHEREAS, the proposal solicitation package from the Department of Water Resources allows the applicant to receive the benefit of credit for the cost of work completed after September 30, 2008; and

RESOLUTION NO. 2011-693

Page 2 of 5

WHEREAS, in order to improve flood control and drainage services to the community standard, the City and District have revised local drainage plans in Drainage Areas “Y” and “BO” within the Fancher Creek flood plain; and

WHEREAS, the City and District have constructed certain improvements (Contract “Y-62”) in Drainage Area “Y”; and

WHEREAS, the City and District have constructed with funding provided by a developer certain improvements (Contract “BO-20”) in Drainage Area “BO”; and

WHEREAS, in order to meet the Storm Drainage and Flood Control Master Plan urban drainage standards in Drainage Area “BO”, District must excavate an additional 79,400 cubic yards of soil from the basin, as well as construct a pump station and internal pipeline within the basin; and

WHEREAS, increasing the depth of Basin “BO” from 16 feet to 30 feet would also increase its capacity to capture, store, and recharge stormwater in addition to making stormwater available for surface water irrigation for landscaping; and

WHEREAS, the local urban runoff captured in the basin will also be available for other uses as a non-potable water supply; and

RESOLUTION NO. 2011-693

Page 3 of 5

WHEREAS, the District's providing a connection to Fancher Creek and completing said excavation will increase the volume of imported surface water recharged in Basin "BO"; and

WHEREAS, construction of the proposed Master Plan facilities would eliminate three direct drainage connections into Fancher Creek from surrounding neighborhoods and eliminate a temporary ponding basin, thus protecting water quality; and

WHEREAS, District intends to landscape the top perimeter of Basin "BO" to be compatible with the surrounding residential area and to stabilize the side slopes from erosion; and

WHEREAS, a public tree planting in partnership with Tree Fresno and seeding of turf in the top one-third of the basin would provide aesthetic improvement to the surrounding neighborhood; and

WHEREAS, the Board has allocated sufficient funds from the District's General Fund to pay for future facilities, together with eligible flood control improvements constructed after September 30, 2008 to meet the local cost match requirement; and

WHEREAS, the City and District have completed substantial work at the Fancher Creek Detention Basin since September 30, 2008; and

RESOLUTION NO. 2011-693

Page 4 of 5

WHEREAS, the City and District have completed and submitted hydrologic and hydraulic calculations to the Federal Emergency Management Agency to facilitate its revising the Flood Insurance Rate Maps for the Fancher Creek floodplain area; and

WHEREAS, the said work at the basin and engineering work to revise the floodplain maps are eligible to receive credit under the rules applicable to the grant application; and

WHEREAS, applicants for Proposition 1E grants are required to be members of an Integrated Regional Water Management group, and the City of Fresno is a member of the Upper Kings Basin Integrated Regional Water Management Authority (UKBIRWMA); and

WHEREAS, the City of Fresno, as a UKBIRWMA member and the lead agency on the Proposition 1E grant application wishes to pursue a grant of \$4,432,000 to facilitate construction of facilities needed to serve the property in Drainage Area “BO” in partnership with the District acting as the individual project sponsor.

NOW, THEREFORE BE IT RESOLVED that the Board of Directors hereby:

1) Supports the City of Fresno’s Proposition 1E grant application to fund the Fancher Creek Flood Control Improvement Project,

2) Authorizes Fresno Metropolitan Flood Control District to coordinate with City of Fresno staff to complete the project if the City obtains the grant, and

RESOLUTION NO. 2011-693

Page 5 of 5

3) Authorizes participation by the District in the UKBIRWMA as an Interested Party.

PASSED AND ADOPTED this 13th day of April, 2011 by the following vote, to wit:

AYES: Directors Spina, Williams, Groom, Rastegar, Goodwin, Burleson

NOES: None

ABSENT: Director Fowler

ABSTAIN: None



ton H. Hickox
Secretary for
Environmental
Protection

California Regional Water Quality Control Board

Central Valley Region

Robert Schneider, Chair



Gray Davis
Governor

Fresno Branch Office

Internet Address: <http://www.swrcb.ca.gov/~rwqcb5>
3614 East Ashlan Avenue, Fresno, California 93726
Phone (559) 445-5116 • FAX (559) 445-5910

EXHIBIT NO. 20

12 April 2001

CERTIFIED MAIL

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RECEIVED

APR 16 2001

TO: See attached List

FRESNO METROPOLITAN
FLOOD CONTROL DISTRICT

TRANSMITTAL OF ADOPTED ORDER FOR FRESNO METROPOLITAN FLOOD CONTROL DISTRICT, CITY OF FRESNO, CITY OF CLOVIS, COUNTY OF FRESNO AND CALIFORNIA STATE UNIVERSITY FRESNO, FRESNO COUNTY

Enclosed is an official copy of Order No. 5-01-048 as adopted by the California Regional Water Quality Control Board, Central Valley Region, at its meeting.


DOUGLAS K. PATTESON

Senior Engineer

RCE No. 55985

Enclosure Waste Discharge Requirement
Standard Provisions (Discharger only)

cc: Mr. Darrin Polhemus, Compliance Assurance & Enforcement Unit, State Water Resources Control Board, Sacramento
Mr. Bruce Fujimoto, State Water Resources Control Board, Sacramento
Mr. Eugene Bromley, U.S. EPA, San Francisco
Department of Health Services, Office of Drinking Water, Fresno
Fresno County Environmental Health Department, Fresno
Department of Fish and Game, Region IV, Fresno
Department of Water Resources, San Joaquin District, Fresno
Mr. Florn Core, City of Bakersfield, Water Resources Department, Bakersfield
Mr. Charles A. Lackey, Kern County Engineering and Surveying Services Department, Bakersfield
Mr. Bill Jennings, DeltaKeeper, Stockton

California Environmental Protection Agency



The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Web-site at <http://www.swrcb.ca.gov/~rwqcb5>

Ms. Lisa Daughtry
California State University, Fresno
2311 East Barstow Avenue
Fresno, CA 93727

Ms. Lisa Koehn
City of Clovis
1033 5th Street
Clovis, CA 93612

Mr. Mark I. Williamson
City of Fresno
2600 Fresno
Fresno, CA 93721-3604

Mr. Bob Green
County of Fresno
2200 Tulare Street
Fresno, CA 93721

Mr. Doug Harrison
Fresno Metropolitan Flood Control District
5469 E. Olive Avenue
Fresno, CA 93727

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. 5-01-048

NPDES NO. CA0083500

WASTE DISCHARGE REQUIREMENTS
FOR
FRESNO METROPOLITAN FLOOD CONTROL DISTRICT
CITY OF FRESNO
CITY OF CLOVIS
COUNTY OF FRESNO, AND
CALIFORNIA STATE UNIVERSITY FRESNO

URBAN STORM WATER DISCHARGES
FRESNO COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Board) finds that:

1. Medium sized municipalities (those with a population greater than 100,000 but less than 250,000) that discharge storm water through municipal storm sewer systems to waters of the United States require a National Pollutant Discharge Elimination System (NPDES) Permit to regulate that storm water discharge, pursuant to Section 126.22(a)(iv) of Title 40 of the Code of Federal Regulations (40 CFR). Although the population of the City of Fresno is currently greater than a "medium sized municipality," it was defined as such in Appendix G to Part 122, 40 CFR.
2. Waste Discharge Requirements Order No. 94-244 (NPDES No. CA0083500) was adopted on 16 September 1994 and issued to the Fresno Metropolitan Flood Control District (District), City of Fresno, City of Clovis, County of Fresno (County), California State University Fresno (CSUF), and the California Department of Transportation (Caltrans) for the discharge of Urban Storm Water.
3. On 15 July 1999 the State Water Resources Control Board adopted a statewide Caltrans General Permit for Storm Water Discharges, Order No. 99-06-DWQ. Therefore, Caltrans is not named as a co-permittee on this permit.
4. The District, City of Fresno, City of Clovis, County, and CSUF are hereafter collectively referred to as 'Discharger' and individually as 'Permittees.'
5. The Discharger submitted a permit reapplication package on 1 March 1999.
6. The District, lead agency for permit implementation and coordination, owns and operates a municipal separate storm sewer system (MS4) in accordance with its Master Plan to control flooding and improve storm water quality by manipulating the runoff through approximately 130 interconnected basins throughout the Fresno and Clovis area. The City of Fresno, City of Clovis, and the County control land usage in the areas that drain to the MS4. CSUF discharges storm water runoff from the campus area into the MS4 subject to this permit.

7. Section 402(p)(3)(B)(iii) of the Federal Clean Water Act requires "controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions...."
8. The reapplication package included a revised Storm Water Management Plan (SWMP) that outlines the Best Management Practices (BMPs) the Discharger proposes to implement to achieve the removal of pollutants from storm water to the maximum extent practical. The revised SWMP identifies the following BMP programs:

- Public Involvement and Education,
- Illicit Discharges,
- Structural Controls,
- Operations and Maintenance,
- Construction and Development,
- Commercial and Industrial, and
- Source Identification and Monitoring

The SWMP summarizes specific tasks to complete in order to implement the BMPs for each program.

9. The revised SWMP and any approved modifications or revisions are incorporated herein by reference and made an integral and enforceable part of this Order.
10. Attachment 1 identifies the area included in the District's MS4 Master Plan, which is also the area subject to this permit. Attachment 2 lists the drainage areas, approximate percentage of runoff discharged, and the respective receiving water subject to this permit.
11. The Master Plan proposes to maintain approximately 130 basins that currently exist in the permit area, to design and retrofit basins to remove 80% of incoming pollutants, and to continue to construct basins at the approximately 30 sites included in the Master Plan that do not yet have basins.
12. Estimates in the District's Basin Hydrologic Study show that during an average year, the MS4 retains 90% of the urban runoff from the permit area in storm water basins located throughout the permit area. Another 8% of the urban runoff is discharged to the San Joaquin River or canals after being detained in storm water basins. The remaining 2% is discharged directly to the San Joaquin River or canals.
13. The retention and/or detention of storm water in storm water basins are accepted treatment methods and the Discharger's most effective BMPs in removing pollutants from urban runoff. The retention of storm water prevents pollutants contained in the water from reaching receiving water. The effectiveness of detention on removing pollutants from effluent water varies depending on a number of factors including constituent characteristics and basin design.

14. Several of the MS4 permits for areas around the state that are on their second term contain or have given consideration to Standard Urban Storm Water Mitigation Plans (SUSMPs) for specific categories of new development and redevelopment. In general, the SUSMP requires that 85 percent of the runoff from the subject sites be infiltrated or treated and recommend or require other BMPs. The State Board has found that the provisions in the SUSMPs constitute MEP. However, a SUSMP was not considered for this permit due to the nature of the MS4 in the permit area. The MS4 system covered by this permit is composed of regional, structural detention/retention facilities, which capture runoff from all urban land uses, providing a substantially broader coverage than that created by the SUSMPs. The individual requirements imposed by the SUSMPs on specific categories of development would therefore create a non-productive duplication effort. Additionally, many of the BMPs included in the SUSMPs are already addressed in the Discharger's SWMP. Also, many of the BMPs are designed to address water quality issues different from what occurs in the area covered by this permit. The regional nature of the MS4 and a single responsible body provides more assurance of proper operation and maintenance.
15. While some of the water discharged to receiving waters is done so directly, most discharges are detained for various periods of time. Because of this and the constraints of the current sampling procedures, it is not known for certain whether the existing sampling program captures the full effect of the urban runoff in the receiving water. Regular evaluation of the effectiveness of the procedures is necessary to assure the effects of discharging storm water runoff are being reflected in the Discharger's sampling results.
16. Urban runoff is discharged to the San Joaquin River, and to various canals of the Tulare Lake Basin that eventually flow into the Herndon Canal or the Dry Creek Canal. All of these waters are considered waters of the United States. The Board adopted Water Quality Control Plans for the *San Joaquin River Basin* and *Tulare Lake Basin* (hereafter Basin Plans), which contain water quality objectives for all waters of the Basins. These requirements implement the Basin Plans.
17. The *San Joaquin River Basin Plan* designates the beneficial uses of the San Joaquin River between Friant Dam and Mendota Pool as municipal, domestic, industrial, and agricultural supply water; water contact and non contact water recreation, warm and cold freshwater habitat, warm and cold water migration, warm water spawning, and wildlife habitat.
18. The Herndon and Dry Creek Canals are considered Valley Floor Waters. The beneficial uses of Valley Floor Waters of the Tulare Lake Basin are agricultural and industrial supply water; water contact and non-contact water recreation; warm water habitat; wildlife habitat; rare, threatened, or endangered species habitat; and groundwater recharge.
19. The revised SWMP proposes to discontinue one aspect of one of the Illicit Discharge Elimination BMPs in the original SWMP for identifying illicit connections. The task consisted of following drain lines to confirm no illicit connections exist. No illicit connections were identified employing this BMP during the term of the prior permit, contributing to the determination that the benefits derived failed to justify the cost of implementation. Other parts of the Illicit Discharge Elimination Program will continue.

20. The SWMP proposes to continue the use of recommended and required post-construction provisions. During the last permit period, one provision required facilities with loading docks to direct drains from the loading dock area to vegetated swale areas before connecting to the MS4. However, there were no design specifications for the swales, so they were not consistently constructed and did not achieve universal performance standards. But, because direct connection to the MS4 was thereby prohibited, the provision did allow a greater opportunity for spill discovery and response. The District replaced the swale requirement with a requirement that prohibits subject facilities from directly connecting to the MS4, thus maintaining the spill identification and response element of the control measure.
21. The State Water Resources Control Board issued NPDES General Permits for the discharge of storm water associated with industrial and construction activities (CAS000001 and CAS000002, respectively). To implement the industrial, new development, and construction elements of the SWMP effectively, the Discharger will, at the levels and frequencies described in the SWMP, conduct inspection activities at industries or construction sites to determine compliance with the NPDES General Permits. The Cities and County issue building permits, which implement storm water control provisions. Under the Clean Water Act, the Discharger cannot directly enforce the General Permits, but can and should enforce building permit conditions. The Board intends to work cooperatively with the Discharger to ensure compliance with the requirements of the General Permits.
22. The District currently relies on compliance assistance, educational outreach, and interagency coordination as its compliance assurance mechanisms. However, additional tools for enforcement are under consideration, should existing reliance on Cities and the County prove ineffective. Possible tools include the authority to issue administrative citations and associated fines, the authority to order abatement of a violation and recover any District costs incurred in such abatement, and the authority to establish fees for repeated inspections of continuing violations.
23. Order No. 94-244 required the Discharger to submit the adopted master storm water quality ordinance and accompanying draft memoranda of understanding (MOU) between the participating Permittees (District, the County of Fresno, and the Cities of Clovis and Fresno). The agencies adopted ordinances, but only the County and the City of Clovis entered into an MOU with the District. The City of Fresno delayed entering into an MOU with the District pending a District determination on whether the District would increase its own enforcement capabilities. The District has yet to adopt further enforcement capabilities. In a Notice of Violation dated 17 November 2000, the Board required the City of Fresno to comply with Order No. 94-244 by entering into an MOU with the District by 15 January 2001. An MOU is necessary to define the roles and responsibilities of each agency in implementing the SWMP and complying with the permit.
24. It is not the intent of the federal storm water regulations, or this permit, to regulate storm water discharges from agriculture, open space, and rural land development where they occur in the permit area (40CFR 122.26(a)(v)).

WASTE DISCHARGE REQUIREMENTS ORDER NO. 5-01-048
FRESNO-CLOVIS METROPOLITAN AREA
URBAN STORM WATER DISCHARGES
FRESNO COUNTY

-5-

25. The term "storm water," as used in this permit, includes storm water runoff, snowmelt runoff, and surface runoff and drainage from areas other than those land use types identified in Finding 24.
26. Precipitation in the Fresno-Clovis metropolitan area averages 10.6 inches per year, according to data included in the University of California Statewide Integrated Pest Management Project.
27. Certain storm water facilities may create a habitat for vectors if not properly designed or maintained. Storm water facilities that generate vectors or nuisances can be eliminated or avoided by close coordination of design and surveillance and control with the local Mosquito or Vector Control Agency of the State Department of Health Services. Nothing in this permit is intended to preclude inspection, abatement, or treatment of nuisances by the vector control agency in accordance with the Health and Safety Code.
28. The SWMP represents best practicable treatment and control of the discharge. The impact on surface water quality and groundwater quality will be minimized through implementation of BMPs, and any consequent degradation considered in the best interest of the people of the state. The discharge will not unreasonably threaten present and anticipated beneficial uses or result in groundwater that exceeds or threatens to exceed water quality objectives set forth in the Basin Plan. Given these considerations, the discharge is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Resources Control Board Resolution No. 68-16.
29. The action to adopt this NPDES permit is exempt from the provisions of Chapter 3 of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21100, et seq.), requiring preparation of an environmental impact report or negative declaration, in accordance with Section 13389 of the California Water Code.
30. The Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for this discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
31. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.
32. This Order shall serve as an NPDES permit pursuant to Section 402 of the CWA, and amendments thereto, and shall take effect upon the date of hearing, provided EPA has no objections.

IT IS HEREBY ORDERED that Order No. 94-244 is rescinded and the Fresno Metropolitan Flood Control District; City of Fresno; City of Clovis; County of Fresno; and California State University, Fresno; their agents, successors and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. Discharge Prohibition:

Discharge of non-storm water (material other than storm water), except as allowed by Provision D.5 or an individual NPDES permit, is prohibited.

B. Discharge Specification:

The Discharger shall reduce the discharge of pollutants into the storm drainage system to the maximum extent practicable.

C. Receiving Water Limitations:

1. Discharges from the MS4 shall not cause or unreasonably contribute to the following in receiving water:
 - a. Oils, greases, waxes, or other materials to form a visible film or coating on the water surface or on objects in the water.
 - b. Oils, greases, waxes, floating material (liquids, solids, foams, and scums), or suspended material to create a nuisance or adversely affect beneficial uses.
 - c. Aesthetically undesirable discoloration.
 - d. Fungi, slimes, or other objectionable growths.
 - e. Taste or odor-producing substances to impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin or to cause nuisance or adversely affect beneficial uses.
 - f. Deposition of material that causes a nuisance or adversely affects beneficial uses.
 - g. Toxic pollutants to be present in the water column, sediments, or biota in concentrations that adversely affect beneficial uses; that produce detrimental physiological response in human, plant, animal, or aquatic life; or that bioaccumulate in aquatic resources at levels which are harmful to human health.
 - h. Concentrations of dissolved oxygen to fall below 7.0 mg/l.
 - i. Radionuclides to be present in concentrations that exceed maximum contaminant levels specified in the California Code of Regulations, Title 22; that harm human, plant, animal, or aquatic life; or that result in the accumulation of radionuclides in the food web to an extent that it presents a hazard to human, plant, animal, or aquatic life.
 - j. The normal ambient pH to fall below 6.5, exceed 8.5, or change by more than 0.5 units.
 - k. Turbidity to exceed the following limits:
 - Where natural turbidity is between 0 and 5 Nephelometric Turbidity Units (NTUs), increases shall not exceed 1 NTU.
 - Where natural turbidity is equal to or between 50 and 100 NTUs, increases shall not exceed 10 NTUs.
 - Where natural turbidity is greater than 100 NTUs, increases shall not exceed 10 percent.
 - m. Violations of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board pursuant to the CWA and regulations adopted thereunder.
2. Discharges to structural controls, such as detention and retention basins, shall not cause underlying groundwater to exceed water quality objectives or adversely affect beneficial uses.

WASTE DISCHARGE REQUIREMENTS ORDER NO. 5-01-048
FRESNO-CLOVIS METROPOLITAN AREA
URBAN STORM WATER DISCHARGES
FRESNO COUNTY

-7-

D. Provisions:

1. The Discharger shall comply with Prohibition A by implementing and enforcing institutional controls that effectively preclude discharge of non-storm water (except as noted in Provision D.5) through its system into waters of the United States.
2. The Discharger shall comply with Prohibition A by implementing and enforcing controls on spills, dumping, and disposal of materials other than storm water into the MS4, and by establishing and maintaining an effective spill emergency response program to respond to and contain spills that inadvertently occur.
3. The Discharger shall comply with Discharge Specification B by continued implementation of the revised SWMP.
4. The Discharger shall comply with Receiving Water Limitations C.1 and C.2 through timely implementation of control measures and other actions to reduce pollutants in the discharges in accordance with the SWMP, include any modifications, and other requirements of this permit. The SWMP shall be designed to achieve compliance with Receiving Water Limitations C.1 and C.2. If exceedance(s) of the limitations occur that are attributable in whole or part to the discharge and persist or recur notwithstanding implementation of the SWMP and other requirements of this permit, the Discharger shall assure it has done everything reasonable and necessary to assure compliance with Receiving Water Limitations C.1 and C.2 by complying with the following procedure:
 - a. Upon a determination by the Discharger that discharges are causing or contributing to an exceedance of Receiving Water Limitations, the Discharger shall notify the Board of its findings within 30 days of the determination. Upon written notification from the Executive Officer, whether the determination is made by the Discharger or the Board, the Discharger shall submit for review and approval by the Executive Officer a report that describes BMPs that are currently being implemented and additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance of Receiving Water Limitations. The report may be incorporated in the annual update to the SWMP unless the Executive Officer directs an earlier submittal. The report shall include an implementation schedule.
 - b. Within 30 days following approval of the report described above, the Discharger shall revise the SWMP and monitoring program to incorporate the approved modified BMPs that have been and will be implemented, the implementation schedule, and any additional monitoring required.
 - c. The Discharger shall implement the revised SWMP and monitoring program in accordance with the approved schedule.

So long as the Discharger has complied with the procedures set forth above and is implementing the revised SWMP, the Discharger is not required to repeat the same procedure for continuing or recurring exceedances of the same receiving water limitations unless directed in writing by the Board to develop additional BMPs.

5. Unless determined by the Executive Officer or the Discharger to be significant sources of pollutants, the following non-storm waters may be discharged through the storm water drainage system:
 - a. water line flushing;
 - b. landscape irrigation;
 - c. diverted stream flows;
 - d. rising groundwaters;
 - e. uncontaminated groundwater infiltration (as defined in 40 CFR 35.2005(20)) to separate storm sewers;
 - f. uncontaminated pumped groundwater;
 - g. discharges from potable water sources;
 - h. foundation drainage;
 - i. air conditioning condensate;
 - j. irrigation water;
 - k. springs;
 - l. water from crawl space pumps;
 - m. footing drainage;
 - n. lawn waters;
 - o. individual residential car wash water;
 - p. flows from riparian habitats and wetlands;
 - q. dechlorinated swimming pool discharges;
 - r. waters from fire fighting activities that are free of contaminants or are otherwise necessary to avoid threats to public health and safety.
6. Major outfalls not identified in the SWMP, but constructed during the term of this Order to receiving waters identified herein, shall not be considered a material change in character, location, or volume of the permitted discharge, and shall be allowed under the terms of this Order without permit application or permit modification, provided at least 90 days prior to construction of the outfall the Discharger submits a report that includes:
 - a. Receiving water name;
 - b. Storm water outfall location map;
 - c. Drainage area (in acres);
 - d. Land use designation; and
 - e. Certification that the SWMP shall be amended to include the drainage area.
7. The Discharger shall perform the actions set forth in the SWMP to achieve compliance with this Order, including, but not limited to:

WASTE DISCHARGE REQUIREMENTS ORDER NO. 5-01-048
FRESNO-CLOVIS METROPOLITAN AREA
URBAN STORM WATER DISCHARGES
FRESNO COUNTY

-9-

- a. Performing inspection, surveillance, and monitoring procedures necessary to determine compliance with ordinances, permits, and other components of the SWMP;
 - b. Implementing programmatic functions as described in the SWMP;
 - c. Providing the requisite funding and personnel to implement the storm water program as described in the SWMP; and,
 - d. Enforcing codes, ordinances, and permits.
8. By **15 April 2001**, the Discharger shall evaluate the effectiveness of the MOUs between the District and the City of Clovis and the County of Fresno and submit a determination of each evaluation. If the MOUs are not adequate to assure effective implementation of the terms of this permit, the co-permittees shall revise the terms and submit signed copies of new MOUs by **15 July 2001**. In determining effectiveness, the co-permittees shall consider whether the current MOUs contain sufficient enforcement tools and accurately reflect actual working relationships, with the understanding that working relationships are dynamic and dependent on day-to-day conditions. If an effective MOU cannot be executed, the District shall develop its own enforcement tools by **15 January 2002**.
 9. By **15 April 2001** the Discharger shall submit an MOU signed by the District and the City of Fresno. Failure by the City of Fresno to enter into an MOU with the District by the above date shall terminate coverage of the permit for the City. Further discharges will be considered discharges without a permit in violation of California Water Code (CWC) §13376 and subject the entity to potential Civil Liability under CWC §13385 and to potential third-party lawsuits.
 10. By **15 September 2001** the Discharger shall submit a template storm water inspection checklist. Following approval by the Executive Officer, the checklist shall be used by the Cities and County to assist in compliance with Provision 7.a.
 11. By **15 September 2001** the Discharger shall submit a proposed training program. The training program shall cover storm water pollution prevention, detection, and abatement issues. Staff that implement prevention, detection, investigation, monitoring, abatement, and enforcement activities proposed in the SWMP shall attend the course. Staff assigned such tasks shall be familiar with applicable elements of the SWMP. The Discharger shall, at its own discretion, develop supplemental lesson plans directed at staff with different responsibilities (e.g., planners, building inspectors, road and maintenance crews, and supervisors). Following approval by the Executive Officer, the training program shall be directed to Discharger personnel responsible for making inspections of construction projects and for personnel associated with municipal operation and maintenance.
 12. The Discharger shall perform the activities in the SWMP, and use its enforcement authorities to ensure compliance with the construction and industrial NPDES permits for discharges within the area subject to this permit (see Finding 10). For cases of noncompliance in which the Discharger lacks sufficient means or authority to ensure compliance, the Discharger shall refer the case to the Board in writing for further enforcement.

WASTE DISCHARGE REQUIREMENTS ORDER NO. 5-01-048
FRESNO-CLOVIS METROPOLITAN AREA
URBAN STORM WATER DISCHARGES
FRESNO COUNTY

-10-

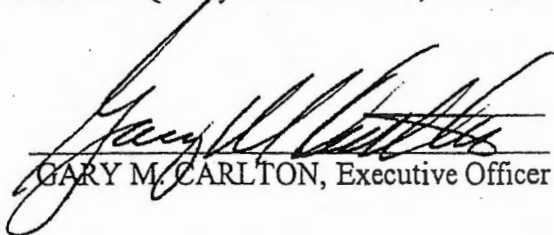
13. Discharger may require anyone with a general construction or industrial NPDES storm water permit discharging to the MS4 to comply with more stringent local conditions specified in the SWMP, including any local prohibition. In no case shall a requirement by a Permittee be less stringent than the NPDES requirements.
14. The Discharger shall consider vector and nuisance abatement while implementing all parts of the revised SWMP. The Discharger shall consult with the Local Mosquito or Vector Control Agency or the State Department of Health Services and implement reasonable and appropriate BMPs to minimize mosquito or vector breeding.
15. SWMP may need to be revised or amended to respond to changed conditions and to incorporate more effective approaches to pollutant control. Requests for changes may be initiated in writing by either the Executive Officer or by the Discharger. In response to the Discharger's request, the Executive Officer may approve the request in writing or request a report if more information is necessary, before submittal to the Board. Minor changes may be approved by the Executive Officer and reported to the Board as an information item. Major changes are subject to Board approval.
16. The SWMP, and any modifications or revisions to the SWMP that are approved in accordance with Provision D.15 of this Order, are enforceable components of this Order. The timely implementation of BMPs and other actions to reduce pollutants in storm water discharges in accordance with the SWMP and any of its modifications, revisions, or amendments thereto shall serve to demonstrate compliance with federal requirements to reduce pollutants to the Maximum Extent Practicable and this Order.
17. This Order may be modified, or alternatively, revoked or reissued, prior to the expiration date as follows: a) to address significant changed conditions identified in the technical reports required by the Board which were unknown at the time of the issuance of this Order; b) to incorporate applicable requirements of statewide water quality control plans adopted by the State Board or amendments to the Basin Plan approved by the State Water Resources Control Board; or c) to comply with any applicable requirements, guidelines, or regulations issued or approved under Section 402(p) of the CWA, if the requirement, guideline, or regulation so issued or approved contains different conditions or additional requirements not provided for in this Order. The Order as modified or reissued under this paragraph shall also contain any other requirement of the CWA when applicable.
18. The Discharger shall comply with Monitoring and Reporting Program No. 5-01-048, which is part of this Order, and any revisions thereto as ordered by the Executive Officer.
19. The Discharger shall comply with the Fresno-Clovis Metropolitan Storm Water Quality Management Programs: *Receiving Water Monitoring Plan* (6 January 1995) and *In-System Monitoring Plan* (7 April 1995) which is part of this Order by reference, and any revisions thereto as ordered by the Executive Officer.

WASTE DISCHARGE REQUIREMENTS ORDER NO. 5-01-048
FRESNO-CLOVIS METROPOLITAN AREA
URBAN STORM WATER DISCHARGES
FRESNO COUNTY

-11-

20. The Discharger shall comply with all applicable Standard Provisions of the "Standard Provisions and Reporting Requirements for Waste Discharge Requirements (NPDES)," dated 1 March 1991, which is part of this Order, and any revisions thereto as ordered by the Executive Officer.
21. The Discharger may request changes to the Monitoring and Reporting Program. Revisions to the Monitoring and Reporting Program shall be subject to approval of the Executive Officer.
22. This Order expires **16 March 2006**. The Discharger must file a Report of Waste Discharge in accordance with Title 23, CCR, not later than 180 days in advance of such date in application for renewal of this NPDES Storm Water Permit.

I, GARY M. CARLTON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 16 March 2001.



GARY M. CARLTON, Executive Officer

JAB:fmc:3/16/01

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. 5-01-048

NPDES NO. CA0083500

FOR FRESNO METROPOLITAN FLOOD CONTROL DISTRICT
CITY OF FRESNO
CITY OF CLOVIS
COUNTY OF FRESNO AND
CALIFORNIA STATE UNIVERSITY FRESNO
URBAN STORM WATER DISCHARGES
FRESNO COUNTY

River monitoring sample stations shall be those described in *Standard Operating Procedures for the Fresno-Clovis Storm Water Quality Monitoring Program: River Monitoring* (Larry Walker Associates, 1997). The parameters tested shall be those that were sampled for during the first permit term (see Attachment 3 for a complete list). Sampling and analytical procedures shall be in accordance with the United States Environmental Protection Agency's recommended procedures. Chain of custody forms shall be completed for each sample collected and copies provided to the Regional Board.

IN-SYSTEM STORM WATER MONITORING

By 3 months from adoption of this monitoring and reporting program, the Discharger shall submit a report on the in-system monitoring plan. The report shall include an estimate of when sufficient data will be gathered in order to evaluate the effectiveness of Basin V and the criteria of the next basin design to be monitored. The submitted plan shall be implemented according to its time schedule. Changes to the plan shall be made in writing to the Board.

RECEIVING WATER MONITORING

The Discharger shall continue to implement its Storm Water Monitoring Program in accordance with the *Fresno-Clovis Metropolitan Storm Water Quality Management Program: Receiving Water Monitoring Plan* (6 January 1995).

REPORTING

The Discharger shall submit, by 1 September each year, an annual report, covering the previous year between 1 July and 30 June which includes:

1. The status of the Measurable Goals provided in the SWMP
2. A discussion of program accomplishments
3. Results of the Illicit Discharge Elimination Program, including
 - a. Number, quantity, and quality of identified dry weather flows, and

MONITORING AND REPORTING PROGRAM NO. 5-01-048
FRESNO-CLOVIS METROPOLITAN AREA
URBAN STORM WATER DISCHARGES
FRESNO COUNTY

-2-

- b. Number, quantity, quality, and source of identified illicit discharges existing and eliminated;
- 4. Known spill incidents that resulted in a discharge to the storm sewer or water of the United States, including the type, quantity, quality, and source of spill;
- 5. Monitoring information collected pursuant to the Storm Water Monitoring program, including
 - a. Results of all sampling,
 - b. Estimation of pollutant loads generated within the drainage area, and
 - c. Percent change in pollutant load from the previous permit years;
- 6. Estimates of volume of water percolated into basins and discharged to surface waters;
- 7. A report of studies performed in regards to improving the monitoring program. The report shall include the status of ongoing studies, any conclusions drawn from the studies, and, if appropriate, a plan, subject to approval by the Executive Officer, to implement changes to the monitoring program.
- 8. A summary of industrial and construction activity storm water inspections conducted, including
 - a. Number of inspections conducted,
 - b. Follow-up activities,
 - c. Results of follow-up activities and enforcement, and
 - d. Proposed improvements to the program;
- 9. The name, title, and phone number of the primary of contact person for each Permittee;
- 10. A discussion of the effectiveness of pollution control activities described in the SWMP, including information gathered to qualitatively and quantitatively evaluate the ability of the SWMP to reduce pollutants;
- 11. A discussion of the adequacy of legal authority and/or legal controls for implementing and carrying out the SWMP; and
- 12. Recommended changes and/or modifications to the SWMP.

In its annual report, the Discharger shall demonstrate whether the discharge of pollutants to receiving waters has been reduced to the maximum extent practicable, and whether it is in substantial compliance with the SWMP.

All reports submitted in response to this Order shall comply with the signatory requirements stipulated in Standard Provision D.6.

MONITORING AND REPORTING PROGRAM NO. 5-01-048
FRESNO-CLOVIS METROPOLITAN AREA
URBAN STORM WATER DISCHARGES
FRESNO COUNTY

-3-

The Discharger shall implement this program on the first day of the month following the effective date of this Order.

Ordered by:


GARY M. CARLTON, Executive Officer

21 March 2001

(Date)

JAB:fmc:3/16/01

INFORMATION SHEET

ORDER NO. 5-01-048
FRESNO-CLOVIS METROPOLITAN AREA
URBAN STORM WATER DISCHARGES
FRESNO COUNTY

Section 402(p) of the Clean Water Act requires municipalities with over 100,000 people and a municipal separate storm sewer system (MS4) to develop and implement a program to reduce pollutants discharged with storm water runoff to the maximum extent practicable. This program is administered through National Pollutant Discharge Elimination System (NPDES) permits.

The discharge of water (both storm water and non-storm water) through the MS4 by the City of Fresno and neighboring urbanized areas is regulated by Order No. 94-244, which has been administratively extended beyond its expiration date. The Fresno Metropolitan Flood Control District (District), the City of Fresno, the City of Clovis, the County of Fresno (County), and California State University Fresno (CSUF), (hereafter referred to collectively as 'Discharger' and individually as 'Permittee') are named on this permit. The District owns and operates the region-wide MS4, which is made up of over 160 drainage areas containing more than 130 interconnected storm water basins. The other agencies are named as co-permittees because they have authority over land use in the urbanized areas and/or discharge into the MS4 subject to this permit.

The Discharger submitted its fourth year annual report to also serve as its permit reapplication package. The package included the Discharger's proposed Storm Water Management Plan (SWMP) for the next permit term.

The SWMP outlines the Best Management Practices (BMPs) that will be implemented in the permit area to prevent the discharge of pollutants in storm water. It also identifies Permittee implementation and financial responsibilities. It is proposed that much of the program will remain the same as during the first permit term. The District will continue to act as lead agency. However, Caltrans, has been removed as a Permittee in this proposed permit pursuant to State Water Resources Control Board Order 99-06-DWQ, the statewide general permit for all Caltrans activities.

Order 94-244 required the Cities and County to sign Memoranda of Understanding (MOU) with the District identifying each other's roles and responsibilities. The City of Fresno did not sign such an agreement, nor take on the responsibilities for compliance that the District could have, had an MOU been in place. There have been instances of noncompliance at construction sites covered by the Construction General Permit in part because the City of Fresno has not implemented an adequate program. This permit requires all Permittees to either evaluate existing MOUs and revise them if necessary or if no MOU exists currently, to enter into one.

The SWMP also addressed Phase II of the Storm Water Regulations that were published in the Federal Register on 8 December 1999. Phase II regulations require small municipalities to address six specific minimum control measures; however, municipalities covered by Phase I permits are not subject to Phase II requirements. Therefore, this proposed permit does not specifically require the Discharger to comply with Phase II requirements. The storm water program implemented by the Discharger is expected to accommodate Phase II in instances where changes to statewide general permits are made.

Several of the MS4 permits for areas around the state that are on their second term contain or have given consideration to Standard Urban Storm Water Mitigation Plans (SUSMPs) for specific categories of developments. In general, the SUSMP requires that 85 percent of the runoff from the subject sites be infiltrated or treated. The State Board has found that the provisions in the SUSMPs constitute MEP. However, similar provisions were not considered for this permit due to the nature of the MS4 in the permit area. Because detention and retention are provided on a regional level, in general, it would be inefficient to require individual developments to do the same thing. According to the Basin Hydrologic Study, submitted by the Discharger during the first permit term, for an average rainfall year (in terms of both quantity and distribution), 90% of the rainfall in the area will not be discharged to receiving waters. Eight percent will be detained in storm water basins before being discharged to receiving waters and only the remaining two percent will be discharged directly to receiving waters. This regional system is more protective of water quality because it provides mitigation measures for all existing as well as new development, not just specific categories of new development.

Although this proposed permit does not set numeric effluent limits for storm water discharges, it does require compliance with water quality objectives that protect the beneficial uses of receiving waters, as outlined in the *Water Quality Control Plan(s) for the San Joaquin River and Tulare Lake Basin* (Basin Plans).

The objectives of receiving water monitoring are to assure that beneficial uses are protected and to gather data in order to evaluate the water quality impacts of implementing an MS4 program. Evaluating water quality impacts is seen as a long-term objective and will require several more years of monitoring data. Currently, the only receiving water tested is the San Joaquin River. Approximately 31% of the estimated 10% of all the storm water in the area is discharged into the River. About 55% of the discharged water is discharged to canals that eventually reach the Herndon Canal. Approximately 14% of the discharged water is discharged to canals that eventually reach the Dry Creek Canal.

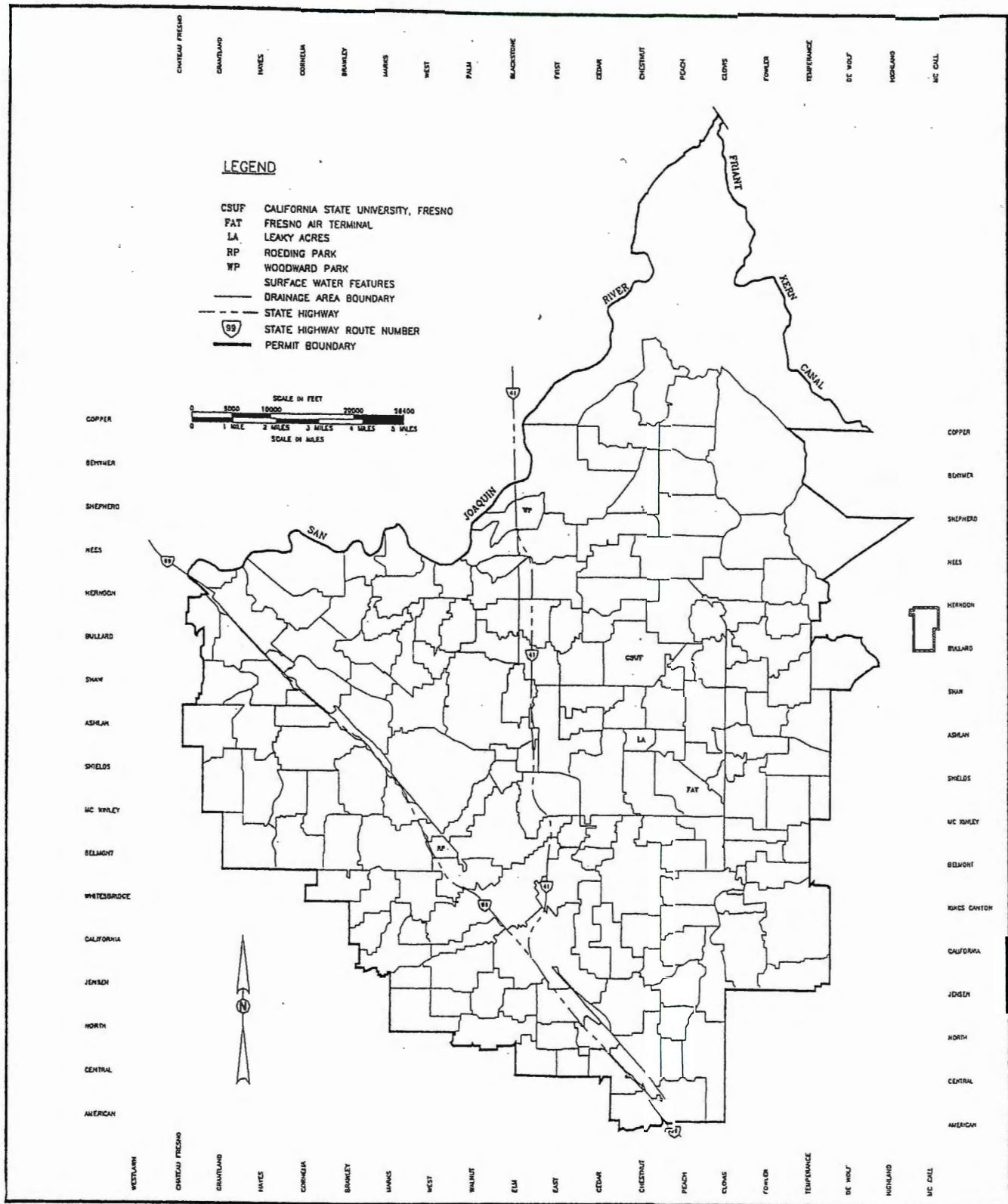
The Discharger also conducts detention basin monitoring to evaluate the effectiveness of the basins in removing pollutants from urban runoff. By collecting monitoring data from one basin for several years, eventually the effectiveness of the three different basin designs used by the FMFCD can be compared.

Storm water samples are taken from three locations on the River: two before any discharge locations, and one after the discharge locations. Past monitoring results do not show strong patterns of constituent concentrations before and after discharge locations, possibly because no flow data is recorded with which to correlate constituent concentrations. It is unclear from these variances whether the current monitoring program correctly characterizes the impact of urban runoff on receiving waters. Therefore, this proposed permit requires reporting on studies undertaken by the Discharger that may lead to improvements in the monitoring program.

The action to adopt this NPDES permit is exempt from the provisions of Chapter 3 of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21100, et seq.), requiring preparation of an environmental impact report or negative declaration, in accordance with Section 13389 of the California Water Code.

WASTE DISCHARGE REQUIREMENTS ORDER NO. 5-01-048
 FRESNO-CLOVIS METROPOLITAN AREA
 URBAN STORM WATER DISCHARGES
 FRESNO COUNTY

Attachment 1
 Permit Area



WASTE DISCHARGE REQUIREMENTS ORDER NO. 5-01-048
 FRESNO-CLOVIS METROPOLITAN AREA
 URBAN STORM WATER DISCHARGES
 FRESNO COUNTY

ATTACHMENT 2
 Drainage Areas

	Drainage Area Designation	Drainage Area Size (acres)	Receiving Water	Ultimate Receiving Water	Average Percent Discharged
1	A	519.5	Braley Canal	Dry Creek	0.3
2	CC	1023.6	Dry Creek	Dry Creek	9.5
3	Z	1741.8	Braley Canal	Dry Creek	3.7
4	AA	451.0	Herndon Canal	Herndon Canal	3.2
5	BB	1104.8	Herndon Canal	Herndon Canal	8.7
6	C	489.0	Dry Creek	Herndon Canal	2.7
7	CM	789.0	Helm Canal	Herndon Canal	1.9
8	CO2	499.0	Bullard Canal	Herndon Canal	< 0.1
9	CX	292.3	Helm Canal	Herndon Canal	< 0.1
10	CY	625.9	Helm Canal	Herndon Canal	0.3
11	DD	2015.0	Herndon Canal	Herndon Canal	11.9
12	F	460.1	Enterprise-Holland Canal	Herndon Canal	0.5
13	G	423.3	Mill Ditch	Herndon Canal	2.5
14	H	422.3	Enterprise-Holland Canal	Herndon Canal	0.8
15	JJ	1242.8	Mill Ditch	Herndon Canal	1.0
16	K	583.3	E2#127	Herndon Canal	0.3
17	L	511.3	Herndon Canal	Herndon Canal	0.6
18	M	631.3	Herndon Canal	Herndon Canal	0.4
19	MM1	94.7	Herndon Canal	Herndon Canal	0.8
20	N	498.2	Enterprise-Holland Canal	Herndon Canal	0.2
21	P	481.5	Helm Canal	Herndon Canal	0.5
22	Q	674.5	Gould Canal	Herndon Canal	4.8
23	UU1	221.8	Herndon Canal	Herndon Canal	2.0
24	V	742.4	Mill Ditch	Herndon Canal	2.1
25	VV	117.8	Herndon Canal	Herndon Canal	1.0
26	WW	208.8	Herndon Canal	Herndon Canal	2.3
27	2D	278.4	Gould Canal	Herndon Canal	1.0
28	3F	575.8	Dawson Canal	Herndon Canal	1.7
29	4B	190.8	Dry Creek	Herndon Canal	0.4
30	4C	539.4	Pup Creek	Herndon Canal	0.5
31	4D	147.5	Pup Creek	Herndon Canal	1.8
32	4E	884.9	Pup Creek	Herndon Canal	0.9
33	5B/5C1	22.0	Dry Creek	Herndon Canal	0.2
34	B/E	1307.0	Herndon Canal	Herndon Canal	< 0.1
35	CO1	438.6	San Joaquin River	San Joaquin River	3.1
36	DF	155.0	San Joaquin River	San Joaquin River	1.0
37	DG	209.0	San Joaquin River	San Joaquin River	1.3
38	DK	2126.2	San Joaquin River	San Joaquin River	15.2
39	EG	903.9	San Joaquin River	San Joaquin River	6.5
40	EK	707.1	San Joaquin River	San Joaquin River	3.7
41	AB	753.5	none	none	N/A
42	AC	663.3	none	none	N/A
43	AD	355.0	none	none	N/A
44	AE	521.0	none	none	N/A
45	AF	397.7	none	none	N/A
46	AG	747.3	none	none	N/A
47	AH	720.8	none	none	N/A
48	AI	494.3	none	none	N/A
49	AJ	382.3	none	none	N/A
50	AK	1114.5	none	none	N/A
51	AL	964.1	none	none	N/A
52	AN	645.1	none	none	N/A
53	AO	683.3	none	none	N/A
54	AQ	738.3	none	none	N/A
55	AR	600.8	none	none	N/A
56	AS	605.5	none	none	N/A
57	AT	377.0	none	none	N/A
58	AU	374.8	none	none	N/A
59	AV	472.5	none	none	N/A
60	AW1	276.0	none	none	N/A
61	AW2	354.0	none	none	N/A
62	AX	282.5	none	none	N/A

WASTE DISCHARGE REQUIREMENTS ORDER NO. 5-01-048
 FRESNO-CLOVIS METROPOLITAN AREA
 URBAN STORM WATER DISCHARGES
 FRESNO COUNTY

ATTACHMENT 2
 Drainage Areas

63	AY	409.5	none	none	N/A
64	AZ	678.7	none	none	N/A
65	BC	1073.6	none	none	N/A
66	BD	511.9	none	none	N/A
67	BF	371.0	none	none	N/A
68	BG	735.7	none	none	N/A
69	BH	1009.7	none	none	N/A
70	BJ	254.3	none	none	N/A
71	BK	276.7	none	none	N/A
72	BL	640.4	none	none	N/A
73	BM	1898.0	none	none	N/A
74	BO	536.9	none	none	N/A
75	BP	447.0	none	none	N/A
76	BQ	324.0	none	none	N/A
77	BR	354.0	none	none	N/A
78	BS	751.0	none	none	N/A
79	BT	984.9	none	none	N/A
80	BU	780.4	none	none	N/A
81	BV	629.2	none	none	N/A
82	BW	512.4	none	none	N/A
83	BX	2033.7	none	none	N/A
84	BZ	640.1	none	none	N/A
85	CD	914.3	none	none	N/A
86	CE	535.2	none	none	N/A
87	CF	692.0	none	none	N/A
88	CG	851.3	none	none	N/A
89	CH	853.9	none	none	N/A
90	CI	489.5	none	none	N/A
91	CJ	865.3	none	none	N/A
92	CK	726.0	none	none	N/A
93	CL	960.4	none	none	N/A
94	CN	885.4	none	none	N/A
95	CP	315.1	none	none	N/A
96	CQ	689.5	none	none	N/A
97	CS	827.8	none	none	N/A
98	CU	323.5	none	none	N/A
99	CV	247.0	none	none	N/A
100	CW	768.1	none	none	N/A
101	CZ	1187.0	none	none	N/A
102	D	321.3	none	none	N/A
103	DE	986.8	none	none	N/A
104	DH	518.0	none	none	N/A
105	DI	254.9	none	none	N/A
106	DJ	114.0	none	none	N/A
107	DL	568.4	none	none	N/A
108	DM	1031.7	none	none	N/A
109	DN	990.3	none	none	N/A
110	EE	2268.8	none	none	N/A
111	EF	843.7	none	none	N/A
112	EH	876.7	none	none	N/A
113	EI	208.7	none	none	N/A
114	EJ	495.9	none	none	N/A
115	EL	106.2	none	none	N/A
116	EM	532.5	none	none	N/A
117	EN	642.6	none	none	N/A
118	EO	744.7	none	none	N/A
119	FF	1983.3	none	none	N/A
120	GG	611.2	none	none	N/A
121	HH	919.3	none	none	N/A
122	I	537.5	none	none	N/A
123	II1	2072.6	none	none	N/A
124	II2	1057.0	none	none	N/A
125	II3	719.8	none	none	N/A
126	II4	563.3	none	none	N/A
127	J	428.8	none	none	N/A
128	KK	354.1	none	none	N/A
129	LL	523.2	none	none	N/A
130	MM2	767.1	none	none	N/A

WASTE DISCHARGE REQUIREMENTS ORDER NO. 5-01-048
 FRESNO-CLOVIS METROPOLITAN AREA
 URBAN STORM WATER DISCHARGES
 FRESNO COUNTY

ATTACHMENT 2
 Drainage Areas

131	NN	877.0	none	none	N/A
132	O	458.8	none	none	N/A
133	OO	379.5	none	none	N/A
134	PP	495.0	none	none	N/A
135	QQ	232.5	none	none	N/A
136	R	800.7	none	none	N/A
137	RR	2460.8	none	none	N/A
138	S	828.8	none	none	N/A
139	SS	489.0	none	none	N/A
140	T	491.5	none	none	N/A
141	TT	782.9	none	none	N/A
142	U	298.1	none	none	N/A
143	UU2	458.3	none	none	N/A
144	UU3	1030.4	none	none	N/A
145	W	526.9	none	none	N/A
146	X	455.0	none	none	N/A
147	XX	434.7	none	none	N/A
148	Y	743.2	none	none	N/A
149	ZZ	536.5	none	none	N/A
150	1E	493.2	none	none	N/A
151	1G	746.3	none	none	N/A
152	3A	188.8	none	none	N/A
153	3D	425.5	none	none	N/A
154	3G	1016.7	none	none	N/A
155	5B/5C2	423.9	none	none	N/A
156	5F	426.2	none	none	N/A
157	6D	369.9	none	none	N/A
158	7C	751.7	none	none	N/A
159	7D	623.8	none	none	N/A
160	7H	317.2	none	none	N/A

WASTE DISCHARGE REQUIREMENTS ORDER NO. 5-01-048
FRESNO-CLOVIS METROOLITAN AREA
URBAN STORM WATER DISCHARGES
FRESNO COUNTY

Attachment 3

Constituent Suite

- 1 . 1-Methylnaphthalene
- 2 . 1-Methylphenanthrene
- 3 . 2,3,5-Trimethylnaphthalene
- 4 . 2,4,5-T
- 5 . 2,4,5-TP (Silvex)
- 6 . 2,4,6-Trichlorophenol
- 7 . 2,4-D
- 8 . 2,4-DB
- 9 . 2,4-Dichlorophenol
- 10 . 2,4-Dimethylphenol
- 11 . 2,4-Dinitrophenol
- 12 . 2,6-Dimethylnaphthalene
- 13 . 2-Chlorophenol
- 14 . 2-Methyl-4,6-dinitrophenol
- 15 . 2-Methylnaphthalene
- 16 . 2-Nitrophenol
- 17 . 4,4'-DDE
- 18 . 4,4'-DDT
- 19 . 4,4'-TDE/DDD
- 20 . 4-Chloro-3-methylphenol
- 21 . 4-Nitrophenol
- 22 . Acenaphthene
- 23 . Acenaphthylene
- 24 . Alachlor
- 25 . Aldrin
- 26 . alpha-BHC
- 27 . alph-Chlordane
- 28 . Aluminum (Al)
- 29 . Ammonia (NH3-N)
- 30 . Anthracene
- 31 . Arsenic (As)
- 32 . Arsenic (As) - Dissolved
- 33 . Azinphosmethyl
- 34 . Barium (Ba)
- 35 . Benzene
- 36 . Benzo(a)anthracene
- 37 . Benzo(a)pyrene
- 38 . Benzo(b)fluoranthene
- 39 . Benzo(e)pyrene
- 40 . Benzo(ghi)perylene
- 41 . Benzo(k)fluoranthene
- 42 . beta-BHC
- 43 . Biphenyl
- 44 . bis(2-ethylhexyl) Phthalate
- 45 . Bolstar
- 46 . Boron (B)
- 47 . Butylbenzyl Phthalate
- 48 . Cadmium (Cd)
- 49 . Cadmium (Cd) - Dissolved
- 50 . Calcium (Ca)
- 51 . Cargon, Total Organic (TOC)

WASTE DISCHARGE REQUIREMENTS ORDER NO. 5-01-048
FRESNO-CLOVIS METROOLITAN AREA
URBAN STORM WATER DISCHARGES
FRESNO COUNTY

Attachment 3

Constituent Suite (continued)

- 52 . Chemical Oxygen Demand (COD)
- 53 . Chloride (Cl)
- 54 . Chlorpyrifos
- 55 . Chromium (Cr)
- 56 . Chromium (Cr) - Dissolved
- 57 . Chrysene
- 58 . Copper (Cu)
- 59 . Copper (Cu) - Dissolved
- 60 . Coumaphos
- 61 . Dalapon
- 62 . Def
- 63 . delta-BHC
- 64 . Demeton-s
- 65 . Diazinon
- 66 . Dibenzo(a,h)anthracene
- 67 . Dibutyl Phthalate
- 68 . Dicamba
- 69 . Dichloroprop (2,4-DP)
- 70 . Dichlofos
- 71 . Dieldrin
- 72 . Diethyl Phthalate
- 73 . Dimethoate
- 74 . Dimethyl Phthalate
- 75 . Di-n-octyl Phthalate
- 76 . Dinoseb (DNBP)
- 77 . Diphenamid
- 78 . Disulfoton
- 79 . Endosulfan I
- 80 . Endosulfan II
- 81 . Endosulfan sulfate
- 82 . Endrin
- 83 . Endrin aldehyde
- 84 . Endrin ketone
- 85 . Ethion
- 86 . Ethoprop
- 87 . Ethylbenzene
- 88 . Fecal Coliform
- 89 . Fecal Streptococcus
- 90 . Fensulfothion
- 91 . Fenthion
- 92 . Fluoranthene
- 93 . Fluorene
- 94 . gamma-BHC
- 95 . gamma-Chlordane
- 96 . Hardness (as CaCO₃)
- 97 . Heptachlor
- 98 . Heptachlor epoxide
- 99 . Hydrocarbon Oil and Grease
- 100 . Indeno(1,2,3-cd)pyrene
- 101 . Lead (PB)
- 102 . Lead (PB) - Dissolved
- 103 . Magnesium (Mg)

WASTE DISCHARGE REQUIREMENTS ORDER NO. 5-01-048
FRESNO-CLOVIS METROOLITAN AREA
URBAN STORM WATER DISCHARGES
FRESNO COUNTY

Attachment 3

Constituent Suite (continued) .

- 104 . Malathion
- 105 . MCPA
- 106 . MCPP
- 107 . Mercury (Hg)
- 108 . Merphos
- 109 . Methidathion
- 110 . Methoxychlor
- 111 . Methyl Trithion
- 112 . Methyl-tert-butyl ether
- 113 . Mevinphos
- 114 . Naled
- 115 . Naphthalene
- 116 . Nickel (N)
- 117 . Nickel (N) - Dissolved
- 118 . Nitrate (NO3)
- 119 . Nitrite (NO2-N)
- 120 . Nitrogen, Total Kjeldahl (TKN)
- 121 . Parathion, ethyl
- 122 . Parathion, methyl
- 123 . Pentachlorophenol
- 124 . Perylene
- 125 . Phenanthrene
- 126 . Phenol
- 127 . Phorate
- 128 . Phosalone
- 129 . Phosmet
- 130 . Phosphate, Ortho (o-PO4-P)
- 131 . Potassium (K)
- 132 . Prometon
- 133 . Prowl
- 134 . Pyrene
- 135 . Pommel
- 136 . Selenium (Se)
- 137 . Selenium (Se) - Dissolved
- 138 . Silver (Ag)
- 139 . Silver (Ag) - Dissolved
- 140 . Simazine
- 141 . Sodium (Na)
- 142 . Solids, Total Dissolved (TDS)
- 143 . Solids, Total Suspended (TSS)
- 144 . Sulfate (SO4)
- 145 . Toluene
- 146 . Total Coliform
- 147 . Total Detectable PAHs
- 148 . Tozphene
- 149 . Trichloronate
- 150 . Trifluralin
- 151 . Xylene-o
- 152 . Xylenes-m,p
- 153 . Zinc (Zn)
- 154 . Zinc (Zn) - Dissolved

California Regional Water Quality Control Board - Central Valley Region

STANDARD PROVISIONS AND REPORTING REQUIREMENTS
FOR
WASTE DISCHARGE REQUIREMENTS
(National Pollutant Discharge Elimination System)

1 March 1991

A. GENERAL PROVISIONS

1. Any violation of this Order constitutes a violation of the Federal Clean Water Act (CWA) and the California Water Code (CWC) and, therefore, may result in enforcement action under either or both laws.
2. The Clean Water Act provides that any person who violates a portion of this Order implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act is subject to a civil penalty not to exceed \$25,000 per day for each violation. Any person who willfully or negligently violates this Order with regard to these sections of the CWA is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than one year, or both.
3. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another; protect the Discharger from liability under federal, state, or local laws; or guarantee the Discharger a capacity right in the receiving waters.
4. The Discharger shall allow representatives of the Regional Water Quality Control Board (hereafter Board), the State Water Resources Control Board and the Environmental Protection Agency (hereafter EPA), upon presentation of credentials, at reasonable hours, to:
 - a. enter premises where wastes are treated, stored, or discharged and facilities in which any required records are kept;
 - b. copy any records required to be kept under terms and conditions of this Order;
 - c. inspect facilities, monitoring equipment, practices, or operations regulated or required by this Order; and
 - d. sample, photograph or video tape any discharge, waste, waste unit or monitoring device.
5. If the Discharger's wastewater treatment plant is publicly owned or subject to regulation by the California Public Utilities Commission, it shall be supervised and operated by persons possessing certificates of appropriate grade according to Title 23, California Code of Regulations (CCR), Division 3, Chapter 14.

6. The Discharger shall at all times properly operate and maintain all facilities, and systems of treatment and control including sludge use and disposal facilities (and related appurtenances) that are installed or used to achieve compliance with this Order.

Proper operation and maintenance includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by the Discharger only when necessary to achieve compliance with this Order.

7. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:
 - a. violation of any term or condition contained in this Order;
 - b. obtaining this Order by misrepresentation or by failing to disclose fully all relevant facts;
 - c. a change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; and
 - d. a material change in the character, location, or volume of discharge.

The causes for modification include:

- a. New regulations. New regulations have been promulgated under Section 405(d) of the Clean Water Act, or the standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued.
- b. Land application plans. When required by a permit condition to incorporate a land application plan for beneficial reuse of sewage sludge, to revise an existing land application plan, or to add a land application plan.
- c. Change in sludge use or disposal practice. Under 40 Code of Federal Regulations (CFR) 122.62(a)(1), a change in the Discharger's sludge use or disposal practice is a cause for modification of the permit. It is cause for revocation and reissuance if the Discharger requests or agrees.

The Board may review and revise this Order at any time upon application of any affected person or the Board's own motion.

8. The filing of a request by the Discharger for modification, revocation and reissuance, or termination of this Order, or notification of

planned changes or anticipated noncompliance, does not stay any condition of this Order.

The Discharger shall furnish, within a reasonable time, any information the Board or EPA may request to determine compliance with this Order or whether cause exists for modifying or terminating this Order. The Discharger shall also furnish to the Board, upon request, copies of records required to be kept by this Order.

9. If a toxic effluent standard or prohibition (including any scheduled compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the CWA, or amendments thereto, for a toxic pollutant that is present in the discharge authorized herein, and such standard or prohibition is more stringent than any limitation upon such pollutant in this Order, the Board will revise or modify this Order in accordance with such toxic effluent standard or prohibition.

The Discharger shall comply with effluent standards and prohibitions within the time provided in the regulations that establish those standards or prohibitions, **even if this Order has not yet been modified.**

10. If more stringent applicable water quality standards are approved, pursuant to Section 303 of the CWA, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.
11. This Order shall be modified, or alternately revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the CWA, if the effluent standard or limitation so issued or approved:
 - a. contains different conditions or is otherwise more stringent than any effluent limitation in the Order; or
 - b. controls any pollutant limited in the Order.

The Order, as modified or reissued under this paragraph, shall also contain any other requirements of the CWA then applicable.

12. The provisions of this Order are severable. If any provision of this Order is found invalid, the remainder of this Order shall not be affected.
13. By-pass (the intentional diversion of waste streams from any portion of a treatment facility or collection system, except those portions designed to meet variable effluent limits) is prohibited except under the following conditions:

- a. (1) by-pass was unavoidable to prevent loss of life, personal injury, or severe property damage; (severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a by-pass; severe property damage does not mean economic loss caused by delays in production;)

and

- (2) there were no feasible alternatives to by-pass, such as the use of auxiliary treatment facilities or retention of untreated waste; this condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a by-pass that would otherwise occur during normal periods of equipment downtime or preventive maintenance;

or

- b. (1) by-pass is required for essential maintenance to assure efficient operation;

and

- (2) neither effluent nor receiving water limitations are exceeded;

and

- (3) the Discharger notifies the Board ten days in advance.

The permittee shall submit notice of an unanticipated by-pass as required in paragraph B.1. below.

- 14. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, failure to implement an appropriate pretreatment program, or careless or improper action. A Discharger that wishes to establish the affirmative defense of an upset in an action brought for noncompliance shall demonstrate, through properly signed, contemporaneous operating logs, or other evidence, that:

- a. an upset occurred due to identifiable cause(s);

- b. the permitted facility was being properly operated at the time of the upset;
- c. notice of the upset was submitted as required in paragraph B.1.; and
- d. remedial measures were implemented as required under paragraph A.17.

In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof.

- 15. This Order is not transferable to any person except after notice to the Board. The Board may modify or revoke and reissue the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA.
- 16. Except for data determined to be confidential under Section 13267 of the CWC, all reports prepared in accordance with terms of this Order shall be available for public inspection at the offices of the Board and EPA. Effluent data are not confidential.
- 17. The Discharger shall take all reasonable steps to minimize any adverse effects to waters of the State or users of those waters resulting from any discharge or sludge use or disposal in violation of this Order. Reasonable steps shall include such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge or sludge use or disposal.
- 18. The fact that it would have been necessary for the Discharger to halt or reduce the permitted activity in order to comply with this Order shall not be a defense for violating this Order.
- 19. The Discharger shall ensure compliance with any existing or future pretreatment standard promulgated by EPA under Section 307 of the CWA, or amendment thereto, for any discharge to the municipal system.
- 20. The discharge of any radiological, chemical or biological warfare agent or high-level, radiological waste is prohibited.
- 21. A copy of this Order shall be maintained at the discharge facility and be available at all times to operating personnel. Key operating personnel shall be familiar with its content.
- 22. Neither the treatment nor the discharge shall create a condition of nuisance or pollution as defined by the CWC, Section 13050.

B. GENERAL REPORTING REQUIREMENTS

1. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, daily maximum effluent limitation, or receiving water limitation of this Order, the Discharger shall notify the Board by telephone (916) 445-5116 within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing within five days, unless the Board waives confirmation. The written notification shall state the nature, time, duration, and cause of noncompliance, and shall describe the measures being taken to remedy the current noncompliance and, prevent recurrence including, where applicable, a schedule of implementation. Other noncompliance requires written notification as above at the time of the normal monitoring report.
2. Safeguard to electric power failure:
 - a. The Discharger shall provide safeguards to assure that, should there be reduction, loss, or failure of electric power, the discharge shall comply with the terms and conditions of this Order.
 - b. Upon written request by the Board the Discharger shall submit a written description of safeguards. Such safeguards may include alternate power sources, standby generators, retention capacity, operating procedures, or other means. A description of the safeguards provided shall include an analysis of the frequency, duration, and impact of power failures experienced over the past five years on effluent quality and on the capability of the Discharger to comply with the terms and conditions of the Order. The adequacy of the safeguards is subject to the approval of the Board.
 - c. Should the treatment works not include safeguards against reduction, loss, or failure of electric power, or should the Board not approve the existing safeguards, the Discharger shall, within ninety days of having been advised in writing by the Board that the existing safeguards are inadequate, provide to the Board and EPA a schedule of compliance for providing safeguards such that in the event of reduction, loss, or failure of electric power, the Discharger shall comply with the terms and conditions of this Order. The schedule of compliance shall, upon approval of the Board, become a condition of this Order.
3. The Discharger, upon written request of the Board, shall file with the Board a technical report on its preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. This report may be combined with that required under B.2.

The technical report shall:

- a. Identify the possible sources of spills, leaks, untreated waste bypass, and contaminated drainage. Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks and pipes should be considered.
- b. Evaluate the effectiveness of present facilities and procedures and state when they became operational.
- c. Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule containing interim and final dates when they will be constructed, implemented, or operational.

The Board, after review of the technical report, may establish conditions which it deems necessary to control accidental discharges and to minimize the effects of such events. Such conditions shall be incorporated as part of this Order, upon notice to the Discharger.

4. The Discharger shall file with the Board a Report of Waste Discharge at least 180 days before making any material change in the character, location, or volume of the discharge. A material change includes, but is not limited to, the following:
 - a. Adding a major industrial waste discharge to a discharge of essentially domestic sewage, or adding a new process or product by an industrial facility resulting in a change in the character of the waste.
 - b. Significantly changing the disposal method or location, such as changing the disposal to another drainage area or water body.
 - c. Significantly changing the method of treatment.
 - d. Increasing the discharge flow beyond that specified in the Order.
5. A publicly owned treatment works (POTW) whose waste flow has been increasing, or is projected to increase, shall estimate when flows will reach hydraulic and treatment capacities of its treatment and disposal facilities. The projections shall be made in January, based on the last three years' average dry weather flows, peak wet weather flows and total annual flows, as appropriate. When any projection shows that capacity of any part of the facilities may be exceeded in four years, the Discharger shall notify the Board by 31 January. A copy of the notification shall be sent to appropriate local elected officials, local permitting agencies and the press. Within 120 days of the notification, the Discharger shall submit a technical report showing how it will prevent flow volumes from exceeding capacity or how it will

increase capacity to handle the larger flows. The Board may extend the time for submitting the report.

6. A manufacturing, commercial, mining, or silvicultural discharger shall notify the Board as soon as it knows or has reason to believe:
 - a. That any activity has occurred or will occur that would result in the discharge of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels":
 - (1) 100 micrograms per liter ($\mu\text{g/l}$);
 - (2) 200 $\mu\text{g/l}$ for acrolein and acrylonitrile; 500 $\mu\text{g/l}$ for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/l) for antimony;
 - (3) five times the maximum concentration value reported for that pollutant in the Report of Waste Discharge; or
 - (4) the level established by the Board in accordance with 40 CFR 122.44(f).
 - b. That it expects to begin to use or manufacture, as an intermediate or final product or by-product, any toxic pollutant that was not reported in the Report of Waste Discharge.
7. A POTW shall provide adequate notice to the Board of:
 - a. any new introduction of pollutants into the POTW from an indirect discharger that would be subject to Sections 301 or 306 of the CWA if it were directly discharging those pollutants, and
 - b. any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of the Order.
 - c. Any planned physical alterations or additions to the permitted facility, or changes planned in the Discharger's sludge use or disposal practice, where such alterations, additions, or changes may justify the application of permit conditions that are different from or absent in the existing permit including notification of additional disposal sites not reported during the permit application process, or not reported pursuant to an approved land application plan.

Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact

of the change on the quantity or quality of effluent to be discharged from the POTW.

8. The Discharger shall give advance notice to the Board of any planned changes in the permitted facility or activity that may result in non-compliance with this Order.
9. The Discharger shall submit technical reports as directed by the Executive Officer.
10. Any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Order, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years per violation, or by both.

C. PROVISIONS FOR MONITORING

1. All analyses shall be performed in accordance with the latest edition of *Guidelines Establishing Test Procedures for Analysis of Pollutants*, promulgated by EPA (40 CFR 136) or other procedures approved by the Board.
2. Chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. In the event a certified laboratory is not available to the Discharger, analyses performed by a noncertified laboratory will be accepted provided a Quality Assurance-Quality Control Program is instituted by the laboratory. A manual containing the steps followed in this program must be kept in the laboratory and shall be available for inspection by Board staff. The Quality Assurance-Quality Control Program must conform to EPA guidelines or to procedures approved by the Board.

Unless otherwise specified, all metals shall be reported as Total Metals.

Unless otherwise specified, bioassays shall be performed in the following manner:

- a. Acute bioassays shall be performed in accordance with guidelines approved by the Board and the Department of Fish and Game or in accordance with methods described in EPA's manual for measuring acute toxicity of effluents (EPA/620/4-85/013 and subsequent amendments).

- b. Short-term chronic bioassays shall be performed in accordance with EPA guidelines (EPA/600/4-89/001 and subsequent amendments).
3. Laboratories that perform sample analyses must be identified in all monitoring reports submitted to the Board and EPA.
4. The Discharger shall conduct analysis on any sample provided by EPA as part of the Discharge Monitoring Quality Assurance (DMQA) program. The results of any such analysis shall be submitted to EPA's DMQA manager.
5. Effluent samples shall be taken downstream of the last addition of wastes to the treatment or discharge works where a representative sample may be obtained prior to mixing with the receiving waters. Samples shall be collected at such a point and in such a manner to ensure a representative sample of the discharge.
6. All monitoring and analysis instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary, at least yearly, to ensure their continued accuracy.
7. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this Order shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or be imprisoned for not more than two years per violation, or by both.
8. The Discharger shall retain records of all monitoring information, including all calibration and maintenance records, all original strip chart recordings of continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order. Records shall be maintained for a minimum of five years from the date of the sample, measurement, report, or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board Executive Officer.
9. The records of monitoring information shall include:
 - a. the date, exact place, and time of sampling or measurements,
 - b. the individual(s) who performed the sampling of measurements,
 - c. the date(s) analyses were performed,
 - d. the individual(s) who performed the analyses,
 - e. the laboratory which performed the analyses,
 - f. the analytical techniques or methods used, and
 - g. the results of such analyses.

D. REPORTING REQUIREMENTS FOR MONITORING

1. The Discharger shall file with the Board technical reports on self-monitoring performed according to the detailed specifications contained in the Monitoring and Reporting Program attached to this Order.
2. Monitoring reports shall be submitted on forms to be supplied by the Board to the extent that the information reported may be entered on the forms. Alternate forms may be approved for use by the Board.
3. The results of all monitoring required by this Order shall be reported to the Board, and shall be submitted in such a format as to allow direct comparison with the limitations and requirements of this Order. Unless otherwise specified, discharge flows shall be reported in terms of the monthly average and the daily maximum discharge flows.
4. The results of analyses performed in accordance with specified test procedures, taken more frequently than required at the locations specified in the Monitoring and Reporting Program, shall be reported to the Board and used in determining compliance.
5. Upon written request of the Board, the Discharger shall submit a summary monitoring report to the Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year(s).
6. All reports shall be signed by a person identified below:
 - a. **For a corporation:** by a principal executive officer of at least the level of senior vice-president.
 - b. **For a partnership or sole proprietorship:** by a general partner or the proprietor, respectively.
 - c. **For a municipality, state, federal or other public agency:** by either a principal executive officer or ranking elected or appointed official.
 - d. A duly authorized representative of a person designated in 6a, 6b or 6c of this requirement if;
 - (1) the authorization is made in writing by a person described in 6a, 6b, or 6c of this provision,
 - (2) the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be

either a named individual or any individual occupying a named position), and

(3) the written authorization is submitted to the Board.

Each person signing a report required by this Order or other information requested by the Board shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

The Discharger shall mail a copy of each monitoring report and any other reports required by this Order to:

California Regional Water Quality Control Board
Central Valley Region
3614 East Ashlan Ave
Fresno, CA 93726

In addition, dischargers designated as a "major" discharger shall transmit a copy of all monitoring reports to EPA (see address in Provision G.10).

E. DEFINITIONS:

1. The daily discharge rate is obtained from the following calculation for any calendar day:

$$\text{Daily discharge rate (lbs/day)} = \frac{8.34}{N} \sum_{i=1}^N Q_i C_i$$

In which N is the number of samples analyzed in a day. Q_i and C_i are the flow rate (mgd) and the constituent concentration (mg/l), respectively, which are associated with each of the N grab samples which may be taken in a day. If a composite sample is taken, C_i is the concentration measured in the composite sample and Q_i is the average flow rate occurring during the period over which samples are composited.

2. The **monthly or weekly average discharge rate** is the total of daily discharge rates during a calendar month or week, divided by the number of days in the month or week that the facility was discharging.

Where less than daily sampling is required by this permit, the monthly or weekly average discharge rate shall be determined by the summation of all the daily discharge rates divided by the number of days during the month or week for which the rates are available.

For other than weekly or monthly periods, compliance shall be based upon the average of all rates available during the specified period.

3. The **monthly or weekly average concentration** is the arithmetic mean of measurements made during a calendar month or week, respectively.
4. The **daily maximum discharge rate** means the total discharge by weight during one day.
5. The **daily maximum concentration** is the greatest concentration found in grab or composite samples analyzed for one day.
6. A **grab sample** is an individual sample collected in less than 15 minutes.
7. Unless otherwise specified, a **composite sample** is a combination of individual samples collected over the specified sampling period:
 - a. at equal time intervals, with a maximum interval of one hour, and
 - b. at varying time intervals (average interval one hour or less) so that each sample represents an equal portion of the cumulative flow.

The duration of the sampling period shall be specified in the Monitoring and Reporting Program. The method of compositing shall be reported with the results.

8. **Sludge** means the solids, residues, and precipitates separated from, or created in, wastewater by the unit processes of a treatment system.
9. **Median** is the value below which half the samples (ranked progressively by increasing value) fall. It may be considered the middle value, or the average of the two middle values.
10. **Overflow** means the intentional or unintentional diversion of flow from the collection and transport systems, including pumping facilities.

F. PRETREATMENT PROGRAM REQUIREMENTS (Applies to dischargers required to establish pretreatment programs by this Order.)

The Discharger shall be responsible for the performance of all pretreatment requirements contained in 40 CFR Part 403 and shall be subject to enforcement actions, penalties, fines, and other remedies by the U.S. Environmental Protection Agency (EPA), or other appropriate parties, as provided in the Clean Water Act, as amended (33 USC 1351 et seq.) (hereafter Act).

The Discharger shall implement and enforce its Approved publicly owned treatment works (POTW) Pretreatment Program. The Discharger's Approved POTW Pretreatment Program is hereby made an enforceable condition of this permit. EPA may initiate enforcement action against an industrial user for noncompliance with applicable standards and requirements as provided in the Act.

The Discharger shall enforce the requirements promulgated under Sections 307(b), (c), and (d) and Section 402(b) of the Act. The Discharger shall cause industrial users subject to Federal Categorical Standards to achieve compliance no later than the date specified in those requirements or, in the case of a new industrial user, upon commencement of the discharge.

1. The Discharger shall perform the pretreatment functions as required in 40 CFR Part 403 including, but not limited to:
 - a. Implement the necessary legal authorities as provided in 40 CFR 403.8(f)(1).
 - b. Enforce the pretreatment requirements under 40 CFR 403.5 and 403.6.
 - c. Implement the programmatic functions as provided in 40 CFR 403.8(f)(2), in particular, the publishing of a list of significant violators.
 - d. Provide the requisite funding and personnel to implement the pretreatment program as provided in 40 CFR 403.8(f)(3).

G. ANNUAL PRETREATMENT REPORT REQUIREMENTS (Applies to dischargers required to establish pretreatment programs by this Order.)

The Discharger shall submit annually a report to the Regional Board, with copies to EPA Region 9 and the State Board, describing the Discharger's pretreatment activities over the previous 12 months. In the event that the Discharger is not in compliance with any conditions or requirements of this Order, including noncompliance with pretreatment audit/compliance inspection requirements, then the Discharger shall also include the reasons for noncompliance and state how and when the Discharger shall comply with such conditions and requirements.

An annual report shall be submitted by **28 February** or as otherwise specified in the Order and include at least the following items:

1. A summary of analytical results from representative, flow-proportioned, 24-hour composite sampling of the POTW's influent and effluent for those pollutants EPA has identified under Section 307(a) of the CWA which are known or suspected to be discharged by industrial users.

The Discharger is not required to sample and analyze for asbestos until EPA promulgates an applicable analytical technique under 40 CFR 136. Sludge shall be sampled during the same 24-hour period and analyzed for the same pollutants as the influent and effluent sampling and analysis. The sludge analyzed shall be a composite sample of a minimum of 12 discrete samples taken at equal time intervals over the 24-hour period. Wastewater and sludge sampling and analysis shall be performed at least annually. The discharger shall also provide any influent, effluent or sludge monitoring data for nonpriority pollutants which may be causing or contributing to Interference, Pass-Through or adversely impacting sludge quality. Sampling and analysis shall be performed in accordance with the techniques prescribed in 40 CFR 136 and amendments thereto.

2. A discussion of Upset, Interference, or Pass-Through incidents, if any, at the treatment plant which the Discharger knows or suspects were caused by industrial users of the POTW. The discussion shall include the reasons why the incidents occurred, the corrective actions taken and, if known, the name and address of the industrial user(s) responsible. The discussion shall also include a review of the applicable pollutant limitations to determine whether any additional limitations, or changes to existing requirements, may be necessary to prevent Pass-Through, Interference, or noncompliance with sludge disposal requirements.
3. The cumulative number of industrial users that the Discharger has notified regarding Baseline Monitoring Reports and the cumulative number of industrial user responses.
4. An updated list of the Discharger's industrial users including their names and addresses, or a list of deletions and additions keyed to a previously submitted list. The Discharger shall provide a brief explanation for each deletion. The list shall identify the industrial users subject to federal categorical standards by specifying which set(s) of standards are applicable. The list shall indicate which categorical industries, or specific pollutants from each industry, are subject to local limitations that are more stringent than the federal categorical standards. The Discharger shall also list the noncategorical industrial users that are subject only to local discharge limitations. The Discharger shall characterize the compliance status through the year of record of each industrial user by employing the following descriptions:

- a. complied with baseline monitoring report requirements (where applicable);
- b. consistently achieved compliance;
- c. inconsistently achieved compliance;
- d. significantly violated applicable pretreatment requirements as defined by 40 CFR 403.8(f)(2)(vii);
- e. complied with schedule to achieve compliance (include the date final compliance is required);
- f. did not achieve compliance and not on a compliance schedule; and
- g. compliance status unknown.

A report describing the compliance status of each industrial user characterized by the descriptions in items c. through g. above shall be submitted for each calendar quarter within 21 days of the end of the quarter. The report shall identify the specific compliance status of each such industrial user and shall also identify the compliance status of the POTW with regards to audit/pretreatment compliance inspection requirements. If none of the aforementioned conditions exist, at a minimum, a letter indicating that all industries are in compliance and no violations or changes to the pretreatment program have occurred during the quarter must be submitted. The information required in the fourth quarter report shall be included as part of the annual report. This quarterly reporting requirement shall commence upon issuance of this Order.

- 5. A summary of the inspection and sampling activities conducted by the Discharger during the past year to gather information and data regarding the industrial users. The summary shall include:
 - a. the names and addresses of the industrial users subjected to surveillance and an explanation of whether they were inspected, sampled, or both and the frequency of these activities at each user; and
 - b. the conclusions or results from the inspection or sampling of each industrial user.
- 6. A summary of the compliance and enforcement activities during the past year. The summary shall include the names and addresses of the industrial users affected by the following actions:
 - a. Warning letters or notices of violation regarding the industrial users' apparent noncompliance with federal categorical standards or

local discharge limitations. For each industrial user, identify whether the apparent violation concerned the federal categorical standards or local discharge limitations.

- b. Administrative orders regarding the industrial users' noncompliance with federal categorical standards or local discharge limitations. For each industrial user, identify whether the violation concerned the federal categorical standards or local discharge limitations.
 - c. Civil actions regarding the industrial users' noncompliance with federal categorical standards or local discharge limitations. For each industrial user, identify whether the violation concerned the federal categorical standards or local discharge limitations.
 - d. Criminal actions regarding the industrial users' noncompliance with federal categorical standards or local discharge limitations. For each industrial user, identify whether the violation concerned the federal categorical standards or local discharge limitations.
 - e. Assessment of monetary penalties. For each industrial user identify the amount of the penalties.
 - f. Restriction of flow to the POTW.
 - g. Disconnection from discharge to the POTW.
- 7. A description of any significant changes in operating the pretreatment program which differ from the information in the Discharger's approved Pretreatment Program including, but not limited to, changes concerning: the program's administrative structure, local industrial discharge limitations, monitoring program or monitoring frequencies, legal authority or enforcement policy, funding mechanisms, resource requirements, or staffing levels.
 - 8. A summary of the annual pretreatment budget, including the cost of pretreatment program functions and equipment purchases.
 - 9. A copy of the public notice as required in 40 CFR 403.8(f)(2)(vii). If no notice was published, explain why.
 - 10. A description of any changes in sludge disposal methods and discussion of any concerns not described elsewhere in the report.

STANDARD PROVISIONS AND REPORTING REQUIREMENTS
National Pollutant Discharge Elimination System

-18

Duplicate signed copies of these reports shall be submitted to the Board
and the

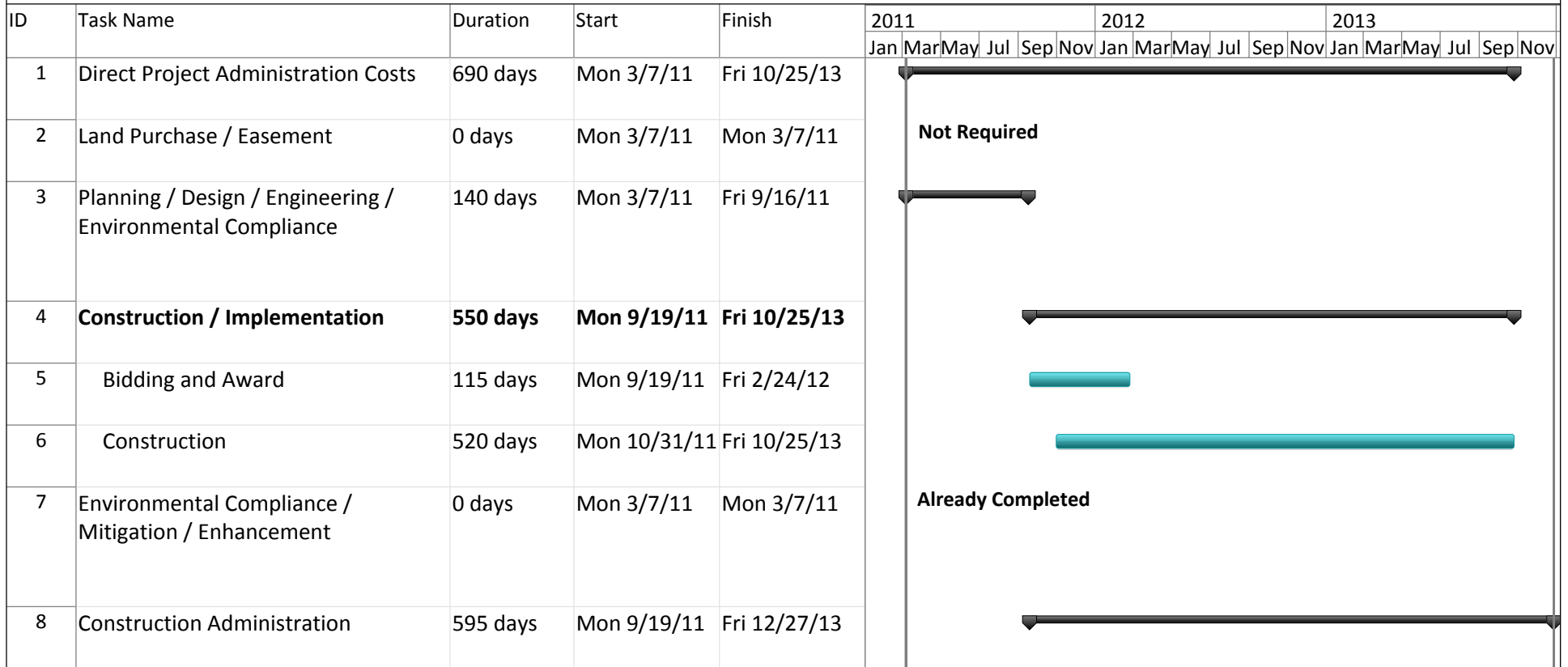
State Water Resources Control Board
Division of Water Quality
P.O. Box 944213
Sacramento, CA 94244-2130

and the

Regional Administrator
U.S. Environmental Protection Agency W-5
75 Hawthorne Street
San Francisco, CA 94105

#

Exhibit No. 22
City of Fresno
Stormwater Infrastructure Project Schedule



Project: BO Schedule Date: Wed 4/13/11	Task		External Milestone		Manual Summary Rollup	
	Split		Inactive Task		Manual Summary	
	Milestone		Inactive Milestone		Start-only	
	Summary		Inactive Summary		Finish-only	
	Project Summary		Manual Task		Deadline	
	External Tasks		Duration-only		Progress	